

GenCore version 5.1.1.6
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OM protein - protein search, using sw model

Run on: April 1, 2005, 23:48:08 ; Search time 172 Seconds
(without alignments)
74.204 Million cell updates/sec

Title: US-09-674-597A-16
Perfect score: 165
Sequence: 1 SVSEIQHXKHLNSXRVWLKQLQDVHNY 33

Scoring table: BLOSUM62DX
Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_16Dec04.*
1: Geneseqp1980s.*
2: Geneseqp1990s.*
3: Geneseqp2000s.*
4: Geneseqp2001s.*
5: Geneseqp2002s.*
6: Geneseqp2003as.*
7: Geneseqp2003bs.*
8: Geneseqp2004s.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	154.5	93.6	34	2 AAR07925	Human par
2	154.5	93.6	34	2 AAR07922	Human par
3	154.5	93.6	34	2 AAW20003	Cyclised
4	154.5	93.6	34	2 AAW19997	Cyclised
5	154.5	93.6	34	2 AAW20009	Cyclised
6	154.5	93.6	34	2 AAW17940	Human PTH
7	154.5	93.6	34	2 AAW67275	Parathyro
8	154.5	93.6	34	2 AAW48392	Human par
9	154.5	93.6	34	3 ABJ10720	Human par
10	154.5	93.6	34	3 ABJ10721	Human par
11	154.5	93.6	34	3 ABJ10718	Human par
12	154.5	93.6	34	3 ABJ10747	Human par
13	154.5	93.6	34	3 ABJ10750	Human par
14	154.5	93.6	34	3 ABJ10715	Human par
15	154.5	93.6	34	3 ABJ10734	Human par
16	154.5	93.6	34	3 ABJ10745	Human par
17	154.5	93.6	34	3 ABJ10772	Human par
18	154.5	93.6	34	3 ABJ10738	Human par
19	154.5	93.6	34	3 ABJ10744	Human par
20	154.5	93.6	34	3 ABJ10709	Human par
21	154.5	93.6	34	3 ABJ10741	Human par
22	154.5	93.6	34	3 ABJ10732	Human par
23	154.5	93.6	34	3 ABJ10708	Human par
24	154.5	93.6	34	3 ABJ10711	Human par
25	154.5	93.6	34	3 ABJ10726	Human par

26	154.5	93.6	34	3 ABJ10731	Human par
27	154.5	93.6	34	3 ABJ10705	Human par
28	154.5	93.6	34	3 ABJ10725	Human par
29	154.5	93.6	34	3 ABJ10768	Human par
30	154.5	93.6	34	3 ABJ10777	Human par
31	154.5	93.6	34	3 ABJ10728	Human par
32	154.5	93.6	34	3 ABJ10723	Human par
33	154.5	93.6	34	3 ABJ10765	Human par
34	154.5	93.6	34	3 ABJ10771	Human par
35	154.5	93.6	34	3 ABJ10773	Human par
36	154.5	93.6	34	3 ABJ10707	Human par
37	154.5	93.6	34	3 ABJ10710	Human par
38	154.5	93.6	34	3 ABJ10716	Human par
39	154.5	93.6	34	3 ABJ10762	Human par
40	154.5	93.6	34	3 ABJ10767	Human par
41	154.5	93.6	34	4 AAB96929	Human par
42	154.5	93.6	34	5 AAE18397	Human PTH
43	154.5	93.6	34	5 AAU73033	Parathyro
44	154.5	93.6	34	8 ADF77391	Nle8,18,
45	154.5	93.6	34	8 ADP18400	Neurogene

ALIGNMENTS

RESULT 1
AAR07925
ID AAR07925 standard; protein; 34 AA.
XX
AC AAR07925;
XX
DT 18-FEB-1991 (first entry)
XX
DE Human parathyroid hormone analogue, Tyr34 Nle8,18 hPTH(7-34).
XX
KW Osteoporosis; hypercalcemia; hyperparathyroidism; hypertension.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Modified-site 8
FT /label= Nle
FT Modified-site 18
FT /label= Nle
XX
PN US4968669-A.
XX
PD 06-NOV-1990.
XX
PF 21-APR-1989; 89US-00341597.
XX
PR 09-MAY-1988; 88US-00191512.
XX
PA (MERI) MERCK & CO INC.
XX
PI Rosenblatt M, Chorev M;
XX
DR WPI; 1990-354642/47.
XX
PT New para:thyroid hormone analogues - which inhibit hormone activity by binding receptors while not producing second messenger molecules.
XX
PS Claim 1; Col 8; 6pp; English.
XX
CC Peptide analogues have high affinity for PTH cell surface receptors, but do not stimulate production of secondary messenger molecules. They may be used in inhibition of PTH action, and in diagnosis and treatment of osteoporosis, hypercalcemia and hyperparathyroidism. Analogues may also be used in treatment of tumours and other cells overproducing peptide hormone-like substances, and immune diseases eg. allergic inflammation and hyperactive lymphocytes. Naturally occurring PTH levels may also be measured in vitro

SQ Sequence 34 AA;

Query Match 93.6%; Score 154.5; DB 2; Length 34;
 Best Local Similarity 88.2%; Pred. No. 2.5e-12;
 Matches 30; Conservative 3; Mismatches 0; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKXGHLNSXERVELRKKLQDVHNY 33
 ||||| :||:||||:||||:||||:||||:||||
 Db 1 SVSEIQLHNLGKHLNSERVELRKKLQDVHNY 34

RESULT 2

AAR07922
 ID AAR07922 standard; protein; 34 AA.

XX AC

XX AC

XX AC

XX AC

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Parathyroid hormone; PTH; amino terminus; cyclic; analogue;
 adenylate cyclase activity; bone growth; osteoporosis; fracture;
 antiresorptive therapy.

Homo sapiens.

Key Location/Qualifiers

Modified-site 8

/label= Nle

/note= "wild-type Met replaced by Nle"

Modified-site 18

/label= Nle

/note= "wild-type Met replaced by Nle"

Misc-difference 26

/note= "joined via amide bond to residue 30"

Misc-difference 30

/note= "joined via amide bond to residue 26"

Modified-site 34

/label= substitution

/note= "wild-type Phe replaced by amidated Lys"

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Matches	33;	Conservative	0;	Mismatches	0;	Indels	1;	Gaps	1;
Qy	1	SVSEIQ-XHNKXGHLNSXERVEWLRKKLQDVHNY	33						
Db	1	SVSEIQXHNKXGHLNSXERVEWLRKKLQDVHNY	34						
RESULT 8									
AAW48392									
AAW48392		standard; peptide; 34 AA.							
AAW48392;									
AC									
XX									
DT	07-JUL-1998	(first entry)							
XX									
XX		Human parathyroid hormone biologically active region.							
DE									
XX		Parathyroid hormone related protein; PTH-2 receptor; PThrP; osteoporosis;							
KW		calcium homeostasis.							
XX									
XX		Homo sapiens.							
OS									
XX									
XX									
PH		Location/Qualifiers							
FT		5							
FT		Region							
FT		/note= "Determines signalling capability"							
FT		23							
FT		Region							
FT		/note= "Determines binding affinity"							
FT									
PN	WO9804591-A1.								
XX									
XX									
PD	05-FEB-1998.								
XX									
PF	30-JUL-1997;	97WO-US013360.							
XX									
PR	31-JUL-1996;	96US-0025471P.							
XX									
PA	(CARD/) GARDELLA T J.								
XX	(JUEP/) JUEPPNER H.								
PA									
PI	Gardella TJ, Jueppner H;								
XX									
XX	WPI; 1998-130622/12.								
DR									
XX									
XX		Parathyroid hormone-related peptide analogues with agonist activity - at							
XX		PTH/PTHrP receptor and either agonist or antagonist activity at PTH-2							
PT		receptor, used e.g. for treatment of osteoporosis.							
PT									
PT		Disclosure; Fig 3; 48pp; English.							
XX									
PS		The present sequence represents the biologically active region of human							
XX		parathyroid hormone (PTH). PTH is a major regulator of calcium							
CC		homeostasis whose principal target cells occur in bone and kidney. Some							
CC		of the renal and skeletal actions of PTH appear to be mimicked by PTH							
CC		related protein (PTHrP) which are believed to interact with the PTH							
CC		receptor in these tissues. The invention creates hybrids (AAW48394-							
CC		W48398) of the active regions of PTH and PTHrP (AAW48393) to determine							
CC		the residues involved in ligand-specificity of the PTH-2 receptor. It was							
CC		found that IL6 5 determined signalling capabilities while TRP 23							
CC		determined binding affinity. The invention shows that by changing these							
CC		two residues in PTHrP to the corresponding residues in PTH, PTHrP peptide							
CC		analogues are created which are claimed to be selective agonists or							
CC		antagonists of the PTH-2 receptor (AAW48399 and AAW48400). The							
CC		antagonistic PTHrP peptide analogues are claimed to be useful in treating							
CC		diseases involving altered or excessive activation of PTH-2 receptors (by							
CC		inhibiting activation) while agonistic PTHrP peptide analogues are							
CC		claimed to be useful in treating osteoporosis (by activating both PTH and							
CC		PTH-2 receptors). PTHrP analogues are also useful for studying biological							

Query Match 93.6%; Score 154.5; DB 2; Length 34;

	Best Local Similarity	88.2%;	Pred. No.	2.5e-12;	Matches	30;	Conservative	3;	Mismatches	0;	Indels	1;	Gaps	1;
Qy	1 SVSEIO-XHNXGKHLNSXRVEWLRRKKLQDVHNY	33												
Dd	1 SVSEIQLMNMLGKHLSMERVWLRKKLQDVHNY	34												
	RESULT 9													
	ABJ10720													
ID	ABJ10720 standard; peptide; 34 AA.													
XX	AC ABJ10720;													
XX	02-DEC-2002 (first entry)													
XX	Human parathyroid hormone analogue #16.													
XX	Human parathyroid hormone; parathyroid hormone-related protein; PTH;													
Kw	PTHrP; analogue; abnormal CNS function; pancreatic function;													
Kw	mineral metabolism; male infertility; abnormal blood pressure;													
Kw	hypothalamic disease.													
OS	Homo sapiens.													
OS	Synthetic.													
FH	Key Location/Qualifiers													
FT	Modified-site 7													
FT	/label= OTHER													
FT	/note= "OTHER=cyclohexylalanine"													
FT	Misc-difference 8													
FT	/note= "D-form residue"													
FT	Modified-site 11													
FT	/label= OTHER													
FT	/note= "OTHER=cyclohexylalanine"													
FT	Modified-site 18													
FT	/label= Nle													
FT	Modified-site 34													
FT	/note= "C-terminal amide"													
FT	Misc-difference 34													
FT	/note= "wild-type Phe substituted by Tyr"													
XX	WO9957139-A2.													
PN														
XX	11-NOV-1999.													
PD														
PF	03-MAY-1999; 99WO-US009521.													
PP														
PR	05-MAY-1998; 98US-00072956.													
XX	(SCRC) SOC CONSEILS RECH & APPL SCI.													
PA														
XX	Chorev M, Dong ZX, Rosenblatt M;													
PI														
XX	WPI; 2000-038790/03.													
DR														
XX	New parathyroid hormone analogs, used for treating e.g. abnormal CNS or													
PT	pancreatic functions, abnormal mineral metabolism and homeostasis, male													
PT	infertility, abnormal blood pressure or hypothalamic disease.													
PS	Claim 11; Page 38; 49pp; English.													
CC	The present invention provides a number of parathyroid hormone (PTH) or													
CC	parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2													
CC	receptor agonists or antagonists and can be used in the treatment of													
CC	disorders resulting from altered or excessive action of the PTH2													
CC	receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,													
CC	divergence from normal mineral metabolism and homeostasis, male													

Query Match 93.6%; Score 154.5; DB 3; Length 34;
Best Local Similarity 94.1%; Pred. No. 2.5e-12;
Matches 32; Conservative 1; Mismatches 0; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKXGHLNSXERVELRKKLQDVHNY 33
Db 1 SVSEIQXHNKXGHLNSXERVELRKKLQDVHNY 34

RESULT 10
ABJ10721
ID ABJ10721 standard; peptide; 34 AA.
XX
AC ABJ10721;
XX
XX 02-DEC-2002 (first entry)
XX
DE Human parathyroid hormone analogue #17.
XX
KW Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
KW PTHrP; analogue; abnormal CNS function; pancreatic function;
KW mineral metabolism; male infertility; abnormal blood pressure;
KW hypothalamic disease.
XX
OS Homo sapiens.
OS Synthetic.

XX FH Key Location/Qualifiers
FT FT Misc-difference 8 /note= "D-form residue"
FT FT Modified-site 18 /label= Nle
FT FT Modified-site 34 /note= "C-terminal amide"
FT FT Misc-difference 34 /note= "wild-type Phe substituted by Tyr"
XX
PN WO9957139-A2.
XX
PD 11-NOV-1999.
XX
PF 03-MAY-1999; 99WO-US009521.
XX
PR 05-MAY-1998; 98US-00072956.
XX
PA (SCRC) SOC CONSEILS RECH & APPL SCI.
XX
PI Chorev M, Dong ZX, Rosenblatt M;
XX
DR WPI; 2000-038790/03.
XX

PT New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
PT pancreatic functions, abnormal mineral metabolism and homeostasis, male
PT infertility, abnormal blood pressure or hypothalamic disease.

PS Claim 11; Page 38; 49pp; English.

XX The present invention provides a number of parathyroid hormone (PTH) or
CC parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
CC receptor agonists or antagonists and can be used in the treatment of
CC disorders resulting from altered or excessive action of the PTH2
CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
CC divergence from normal mineral metabolism and homeostasis, male
CC infertility, abnormal blood pressure or a hypothalamic disease. The
CC present sequence is a peptide analogue of the invention

XX Sequence 34 AA;

Query Match 93.6%; Score 154.5; DB 3; Length 34;
Best Local Similarity 91.2%; Pred. No. 2.5e-12;
Matches 31; Conservative 2; Mismatches 0; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKXGHLNSXERVELRKKLQDVHNY 33

Db 1 SVSEIQVHNLGKHLNSXERVELRKKLQDVHNY 34

RESULT 11
ABJ10718
ID ABJ10718 standard; peptide; 34 AA.
XX
AC ABJ10718;
XX
XX 02-DEC-2002 (first entry)
XX
DE Human parathyroid hormone analogue #14.
XX
KW Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
KW PTHrP; analogue; abnormal CNS function; pancreatic function;
KW mineral metabolism; male infertility; abnormal blood pressure;
KW hypothalamic disease.

XX OS Homo sapiens.
OS Synthetic.

XX FH Key Location/Qualifiers
FT FT Modified-site 7 /label= OTHER
FT FT Misc-difference 8 /note= "OTHER=cyclohexylalanine"
FT FT Modified-site 11 /note= "D-form residue"
FT FT Modified-site 18 /label= OTHER
FT FT Modified-site 18 /note= "OTHER=cyclohexylalanine"
FT FT Modified-site 34 /label= Nle
FT FT Misc-difference 34 /note= "C-terminal amide"
FT FT Misc-difference 34 /note= "wild-type Phe substituted by Tyr"

XX WO9957139-A2.

XX 11-NOV-1999.

XX 03-MAY-1999; 99WO-US009521.

XX 05-MAY-1998; 98US-00072956.

XX (SCRC) SOC CONSEILS RECH & APPL SCI.

XX Chorev M, Dong ZX, Rosenblatt M;

XX WPI; 2000-038790/03.

XX New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
PT pancreatic functions, abnormal mineral metabolism and homeostasis, male
PT infertility, abnormal blood pressure or hypothalamic disease.

PS Claim 11; Page 38; 49pp; English.

XX The present invention provides a number of parathyroid hormone (PTH) or
CC parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
CC receptor agonists or antagonists and can be used in the treatment of
CC disorders resulting from altered or excessive action of the PTH2
CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
CC divergence from normal mineral metabolism and homeostasis, male
CC infertility, abnormal blood pressure or a hypothalamic disease. The
CC present sequence is a peptide analogue of the invention

XX Sequence 34 AA;

Query Match 93.6%; Score 154.5; DB 3; Length 34;
Best Local Similarity 94.1%; Pred. No. 2.5e-12;
Matches 32; Conservative 1; Mismatches 0; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNXGKHLNSXERVEWLRKLQDVHNY 33
 ||||| : |||||
D6 1 SVSEIOXLNHXGKHLNSXERVEWLRKLQDVHNY 34

RESULT 12
ABJ10747
ID ABJ10747 standard; peptide: 34 AA.

AC	ABJ10747;
XX	
DT	02-DEC-2002 (first entry)

DE Human parathyroid hormone analogue #43.

Human; parathyroid hormone; parathyroid hormone-related protein; PTH; PTHrP; analogue; abnormal CNS function; pancreatic function; mineral metabolism; male infertility; abnormal blood pressure; hypothalamic disease.

OS	Homo sapiens.
OS	Synthetic.

Key	Location/Qualifiers
FT Modified-site	7 /label= OTHER
FT	/note= "OTHER-des-Leu"
FT Modified-site	8 /label= Nle
FT	18 /label= Nle
FT Modified-site	34 /note= "C-terminal ami
FT Misc-difference	34

PN WO9957139-A2.

PD 11-NOV-1999.

03-MAY-1999: 99WO-115009521

05-MAY-1998: 98US-00072956-

XX PA (SCRC) SOC CONSETT'S RECH & APPL, SCT.

PI Chorev M, Dong ZX, Rosenblatt M:

DR WPI: 2000-038790/03.

New parathyroid hormone analogs, used for treating e.g. abnormal CNS or pancreatic functions, abnormal mineral metabolism and homeostasis, male infertility, abnormal blood pressure or hypothalamic disease.

PS Claim 11: Page 39: 49pp: English.

The present invention provides a number of parathyroid hormone (PTH) or parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2 receptor agonists or antagonists and can be used in the treatment of disorders resulting from altered or excessive action of the PTH2 receptor, e.g. abnormal CNS functions, abnormal pancreatic functions, divergence from normal mineral metabolism and homeostasis, male infertility, abnormal blood pressure or a hypothalamic disease. The present sequence is a peptide analogue of the invention

Sequence 34 AA;

Query Match 93.6%; Score 154.5; DB 3; Length 34;
Best Local Similarity 94.1%; Pred. No. 2.5e-12;
Matches 32; Conservative 1; Mismatches 0; Indels

Qy 1 SVSEIQ-XHNXGKHLNSXERVWLRKKLQDVHNY 33

db 1 SVSEIOXXHNLGKHLNSXERVEVWL RKKLODVHNY 34

RESULT 13

ABJ10750
ID ABJ10750 standard; peptide: 34 AA.

AC ABJ10750;

DT 02-DEC-2002 (first entry)

DE Human parathyroid hormone analogue #46.

Human; parathyroid hormone; parathyroid hormone-related protein; PTH; PTHrP; analogue; abnormal CNS function; pancreatic function; mineral metabolism; male infertility; abnormal blood pressure; hypocalcemic disease.

XX	
OS	Homo sapiens.
OS	Synthetic

Key	Location/Qualifiers
Modified-site	8 /label= Nle
Modified-site	11 /label= OTHER
Modified-site	18 /note= "des-Leu"
Modified-site	34 /label= Nle
Misc-difference	34 /note= "C-terminal
Misc-difference	34 /note= "wild-type p

PN WO9957139-A2.

PD 11-NOV-1999.

03-MAY-1999: 99WO-US009521.

05-MAY-1998: 98UIS-00072956

XX PA (SCRC) SOC CONSEILS RECH & APPL SCI.

Chorev M. Dong ZX. Rosenblatt M:

WPI: 2000-038790/03.

PT New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
PT pancreatic functions, abnormal mineral metabolism and homeostasis, male
PT infertility, abnormal blood pressure or hyponatremic disease.

PS Claim 11: Page 39: 49pp: English.

CC The present invention provides a number of parathyroid hormone (PTH) or
CC parathyroid hormone-related protein (PTHrP) analogues. These act as PTH
CC receptor agonists or antagonists and can be used in the treatment of
CC disorders resulting from altered or excessive action of the PTH
CC receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
CC divergence from normal mineral metabolism and homeostasis, male
CC infertility, abnormal blood pressure or a hypothalamic disease. The
CC present sequence is a peptide analogue of the invention

Sequence 34 AA;

Query Match 93.6%; Score 154.5; DB 3; Length 34;
Best Local Similarity 97.1%; Pred: No. 2.5e-12;
Matches 33; Conservative 0; Mismatches 0; Indels

QY 1 SVSEIQ-XHNXGKHLNSXERVEWLRKKLQDVHNY 33

Db 1 SVSEIQLXHNXGKHLNSXERVELRKKLODVHNY 34

RESULT 14	
ABJ10715	ABJ10715
ID	ABJ10715 standard; peptide; 34 AA.
AC	ABJ10715;
XX	
DT	02-DEC-2002 (first entry)
XX	
DE	Human parathyroid hormone analogue #11.
XX	
KW	Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
KW	PTHrP; analogue; abnormal CNS function; pancreatic function;
KW	mineral metabolism; male infertility; abnormal blood pressure;
KW	hypothalamic disease.
XX	
OS	Homo sapiens.
OS	Synthetic.
XX	
PH	Key
FT	Modified-site 7 Location/Qualifiers
FT	/label= OTHER
FT	/note= "OTHER=cyclohexylalanine"
FT	Misc-difference 8
FT	/note= "D-form residue"
FT	Modified-site 11
FT	/label= OTHER
FT	/note= "OTHER=cyclohexylalanine"
FT	Modified-site 18
FT	/label= Nle
FT	Modified-site 34
FT	/note= "C-terminal amide"
FT	Misc-difference 34
FT	/note= "wild-type Phe substituted by Tyr"
XX	
PN	WO9957139-A2.
XX	
XX	11-NOV-1999.
XX	
PD	
XX	
PP	03-MAY-1999; 99WO-US009521.
XX	
XX	05-MAY-1998; 98US-00072956.
XX	
XX	(SCRC) SOC CONSEILS RECH & APPL SCI.
PA	
PI	Chorev M, Dong ZX, Rosenblatt M;
XX	
DR	WPI; 2000-038790/03.
XX	
PT	New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
PT	pancreatic functions, abnormal mineral metabolism and homeostasis, male
PT	infertility, abnormal blood pressure or hypothalamic disease.
XX	
XX	Claim 11; Page 38; 49pp; English.
XX	
CC	The present invention provides a number of parathyroid hormone (PTH) or
CC	parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
CC	receptor agonists or antagonists and can be used in the treatment of
CC	disorders resulting from altered or excessive action of the PTH2
CC	receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
CC	divergence from normal mineral metabolism and homeostasis, male
CC	infertility, abnormal blood pressure or a hypothalamic disease. The
CC	present sequence is a peptide analogue of the invention
XX	
SQ	Sequence 34 AA;
Query Match	
Best Local Similarity 93.6%; Score 154.5; DB 3; Length 34;	
Matches 32; Conservative 1; Mismatches 0; Indels 1; Gaps 1;	
Oy	1 SVSEIQ-XHNKXGHLNSXERVEWLRLKLDVHNY 33
Db	1 SVSEIQXHNKXGHLNSXERVEWLRLKLDVHNY 34

RESULT-15	
ABJ10734	ABJ10734
ID	ABJ10734 standard; peptide; 34 AA.
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AC	ABJ10734;
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DT	02-DEC-2002 (first entry)
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DE	Human parathyroid hormone analogue #30.
XX	
KW	Human; parathyroid hormone; parathyroid hormone-related protein; PTH;
KW	PTHrP; analogue; abnormal CNS function; pancreatic function;
KW	mineral metabolism; male infertility; abnormal blood pressure;
KW	hypothalamic disease.
XX	
OS	Homo sapiens.
OS	Synthetic.
XX	
PH	Key
FT	Modified-site 7 Location/Qualifiers
FT	/label= OTHER
FT	/note= "OTHER=cyclohexylalanine"
FT	Misc-difference 8
FT	/note= "D-form residue"
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FT	/note= "D-form residue"
FT	Modified-site 11
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FT	/label= Nle
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FT	/note= "C-terminal amide"
FT	Misc-difference 34
FT	/note= "wild-type Phe substituted by Tyr"
XX	
PN	WO9957139-A2.
XX	
XX	11-NOV-1999.
XX	
PD	
XX	
PP	03-MAY-1999; 99WO-US009521.
XX	
XX	05-MAY-1998; 98US-00072956.
XX	
XX	(SCRC) SOC CONSEILS RECH & APPL SCI.
PA	
PI	Chorev M, Dong ZX, Rosenblatt M;
XX	
DR	WPI; 2000-038790/03.
XX	
PT	New parathyroid hormone analogs, used for treating e.g. abnormal CNS or
PT	pancreatic functions, abnormal mineral metabolism and homeostasis, male
PT	infertility, abnormal blood pressure or hypothalamic disease.
XX	
XX	Claim 11; Page 38; 49pp; English.
XX	
CC	The present invention provides a number of parathyroid hormone (PTH) or
CC	parathyroid hormone-related protein (PTHrP) analogues. These act as PTH2
CC	receptor agonists or antagonists and can be used in the treatment of
CC	disorders resulting from altered or excessive action of the PTH2
CC	receptor, e.g. abnormal CNS functions, abnormal pancreatic functions,
CC	divergence from normal mineral metabolism and homeostasis, male
CC	infertility, abnormal blood pressure or a hypothalamic disease. The
CC	present sequence is a peptide analogue of the invention
XX	
SQ	Sequence 34 AA;
Query Match	
Best Local Similarity 93.6%; Score 154.5; DB 3; Length 34;	
Matches 33; Conservative 0; Mismatches 0; Indels 1; Gaps 1;	
Oy	1 SVSEIQ-XHNKXGHLNSXERVEWLRLKLDVHNY 33
Db	1 SVSEIQXHNKXGHLNSXERVEWLRLKLDVHNY 33

Db 1 SVSEIQXXHNGKHLNSXERVELRKKQDVHNY 34

Search completed: April 2, 2005, 00:08:39
Job time : 175 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: April 2, 2005, 00:05:01 ; Search time 42 Seconds
(without alignments)
58.653 Million cell updates/sec

Title: US-09-674-597A-16
Perfect score: 165
Sequence: 1 SVSEIQTNNXGKHLNXXRVERWLRKKLQDVHNY 33

Scoring table: BLOSUM62DX
Gapop 10.0 , Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued Patents AA:*
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6: /cgn2_6/ptodata/1/1aa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
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2	154.5	93.6	34	2	US-08-142-551B-3
3	154.5	93.6	34	3	US-08-903-497A-1
4	154.5	93.6	34	3	US-09-635-076-1
5	154.5	93.6	34	4	US-09-843-221A-21
6	154.5	93.6	35	2	US-08-142-551B-4
7	154.5	93.6	35	2	US-08-142-551B-5
8	154.5	93.6	35	2	US-08-142-551B-7
9	154.5	93.6	35	2	US-08-142-551B-23
10	154.5	93.6	35	2	US-08-142-551B-31
11	154.5	93.6	35	2	US-08-142-551B-32
12	154.5	93.6	35	2	US-08-142-551B-33
13	154.5	93.6	35	2	US-08-142-551B-34
14	154.5	93.6	35	2	US-08-142-551B-35
15	154.5	93.6	35	2	US-08-142-551B-36
16	154.5	93.6	35	2	US-08-142-551B-37
17	154.5	93.6	35	2	US-08-142-551B-44
18	154.5	93.6	35	2	US-08-142-551B-45
19	154.5	93.6	35	2	US-08-142-551B-46
20	154.5	93.6	35	2	US-08-142-551B-49
21	154.5	93.6	35	2	US-08-142-551B-67
22	154.5	93.6	35	2	US-08-142-551B-68
23	154.5	93.6	35	2	US-08-142-551B-70
24	154.5	93.6	35	2	US-08-142-551B-73
25	154.5	93.6	35	2	US-08-142-551B-80
26	154.5	93.6	35	2	US-08-142-551B-90
27	154.5	93.6	35	2	US-08-142-551B-94

28	154.5	93.6	44	1	US-08-468-275-4	Sequence 4, Appli
29	154.5	93.6	44	3	US-09-007-466-4	Sequence 4, Appli
30	154.5	93.6	44	3	US-08-952-980B-4	Sequence 4, Appli
31	154.5	93.6	67	2	US-08-142-551B-9	Sequence 9, Appli
32	151.5	91.8	35	2	US-08-142-551B-30	Sequence 30, Appli
33	151.5	91.8	35	2	US-08-142-551B-50	Sequence 50, Appli
34	151.5	91.8	35	2	US-08-142-551B-72	Sequence 72, Appli
35	151.5	91.8	35	2	US-08-142-551B-88	Sequence 88, Appli
36	151.5	91.8	35	2	US-08-142-551B-91	Sequence 91, Appli
37	151.5	91.8	35	2	US-08-142-551B-95	Sequence 95, Appli
38	151.5	91.8	35	2	US-08-142-551B-102	Sequence 102, App
39	150.5	91.2	34	1	US-07-765-373-1	Sequence 1, Appli
40	150.5	91.2	34	1	US-08-033-099-1	Sequence 1, Appli
41	150.5	91.2	34	1	US-08-262-495C-1	Sequence 1, Appli
42	150.5	91.2	34	1	US-07-915-247A-1	Sequence 1, Appli
43	150.5	91.2	34	1	US-08-443-863-1	Sequence 1, Appli
44	150.5	91.2	34	1	US-08-448-070-1	Sequence 1, Appli
45	150.5	91.2	34	1	US-08-488-105-4	Sequence 4, Appli

ALIGNMENTS

RESULT 1
US-08-488-105-10
; Sequence 10, Application US/08488105
; Patent No. 5717062
; GENERAL INFORMATION:
; APPLICANT: Chorev, Michael
; APPLICANT: Rosenblatt, Michael
; TITLE OF INVENTION: CYCLIC ANALOGS OF PTH AND PTHrP
; NUMBER OF SEQUENCES: 22
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 225 Franklin Street
; CITY: Boston
; STATE: MA
; COUNTRY: USA
; ZIP: 02110-2804
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/488,105
; FILING DATE: 07-JUN-1995
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: Tsao, Y. Rocky
; REGISTRATION NUMBER: 34,053
; REFERENCE/DOCKET NUMBER: 00537/112001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 617/542-5070
; TELEFAX: 617/542-8906
; TELEX: 200154
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 34 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FEATURE:
; OTHER INFORMATION: The side chains of Lys at
; position 26 and Asp at position 30 are linked by an amide bond
; and this sequence has an amide C-terminus (i.e., CONH2), rather
; than a carboxy C-terminus (i.e., COOH).
; FEATURE: Xaa at positions 8 and 18
; OTHER INFORMATION: are No. 5717062leucine.
US-08-488-105-10

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/635,076
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/903,497
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Markowicz, Karen R.
REGISTRATION NUMBER: 36,351
REFERENCE/DOCKET NUMBER: 0609,4310001/JAG/KRM
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 371-2600
TELEFAX: (202) 371-2540
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 34 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: not relevant
MOLECULE TYPE: peptide
FEATURE:
NAME/KEY: MODIFIED-SITE
LOCATION: 34
OTHER INFORMATION: CARBOXY-TERMINAL MODIFICATION OF TYROSINE-
OTHER INFORMATION: AMIDE
US-09-635-076-1

Query Match 93.6%; Score 154.5; DB 3; Length 34;
Best Local Similarity 88.2%; Pred. No. 6.8e-13;
Matches 30; Conservative 3; Mismatches 0; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVEWLKRLKQDVHNY 33
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DB 1 SVSEIQLHNLGKHLNSERVEWLKRLKQDVHNY 34

RESULT 5
US-09-843-221A-21
Sequence 21, Application US/09843221A
Patent No. 6756480
GENERAL INFORMATION:
APPLICANT: KOSTENUK, PAUL
APPLICANT: LIU, CHUAN-FA
APPLICANT: LACEY, DAVID LEE
TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
TITLE OF INVENTION: RELATED PROTEIN
FILE REFERENCE: A-665B
CURRENT APPLICATION NUMBER: US/09/843,221A
CURRENT FILING DATE: 2001-04-26
PRIOR APPLICATION NUMBER: 60/266,673
PRIOR FILING DATE: 2001-02-06
PRIOR APPLICATION NUMBER: 60/214,860
PRIOR FILING DATE: 2000-06-28
PRIOR APPLICATION NUMBER: 60/200,053
PRIOR FILING DATE: 2000-04-27
NUMBER OF SEQ ID NOS: 170
SOFTWARE: Patent in version 3.1
SEQ ID NO 21
LENGTH: 34
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: modified human PTH
US-09-843-221A-21

Query Match 93.6%; Score 154.5; DB 4; Length 34;
Best Local Similarity 88.2%; Pred. No. 6.8e-13;
Matches 30; Conservative 3; Mismatches 0; Indels 1; Gaps 1;

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|||||:|||||:|||||:|||||:|||||
DB 1 SVSEIQLHNLGKHLNSERVEWLKRLKQDVHNY 34
RESULT 6
US-08-142-551B-4
Sequence 4, Application US/08142551B
Patent No. 5814603
GENERAL INFORMATION:
APPLICANT: Oldenburg, Kevin R.
APPLICANT: Selick, Harold E.
TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
NUMBER OF SEQUENCES: 132
CORRESPONDENCE ADDRESS:
ADDRESSEE: Burns, Doane, Swecker & Mathis
STREET: 699 Prince Street
CITY: Alexandria
STATE: Virginia
COUNTRY: US
ZIP: 22313
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/142,551B
FILING DATE: 25-OCT-1993
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/077,296
FILING DATE: 14-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/898,219
FILING DATE: 12-JUN-1992
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/965,677
FILING DATE: 22-OCT-1992
ATTORNEY/AGENT INFORMATION:
NAME: Swiss, Gerald F.
REGISTRATION NUMBER: 30,113
REFERENCE/DOCKET NUMBER: 000324-010
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 854-7400
TELEFAX: (415) 854-8275
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 35 amino acids
TYPE: amino acid
TOPOLOGY: unknown
MOLECULE TYPE: protein
FEATURE:
NAME/KEY: Modified-site
LOCATION: 35
OTHER INFORMATION: /note= "Xaa" is Homoserine
OTHER INFORMATION: Lactone"
US-08-142-551B-4

Query Match 93.6%; Score 154.5; DB 2; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.1e-13;
Matches 30; Conservative 3; Mismatches 0; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVEWLKRLKQDVHNY 33
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DB 1 SVSEIQLHNLGKHLNSERVEWLKRLKQDVHNY 34

RESULT 7
US-08-142-551B-5
Sequence 5, Application US/08142551B
Patent No. 5814603


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; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION DATA: US 07/898,219
; FILING DATE: 12-JUN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 23:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 35
; OTHER INFORMATION: /note= "Where "Xaa" is selected
; OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
; OTHER INFORMATION: amide, or the sequence of amino acids comprising
; OTHER INFORMATION: residues 35-84 of PTH."
US-08-142-551B-23

Query Match 93.6%; Score 154.5; DB 2; Length 35;
Best Local Similarity 88.2%; Pred. No. 7,1e-13;
Matches 30; Conservative 3; Mismatches 0; Indels 1; Gaps 1;

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Db 1 SVSEIQHLNLGKHLNSLRLVWLKRLKQDVHNY 34

RESULT 10
US-08-142-551B-31.
; Sequence 31, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/898,219
; FILING DATE: 12-JUN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
```

```
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 31:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 35
; OTHER INFORMATION: /note= "Where "Xaa" is selected
; OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
; OTHER INFORMATION: amide, or the sequence of amino acids comprising
; OTHER INFORMATION: residues 35-84 of PTH."
US-08-142-551B-31

Query Match 93.6%; Score 154.5; DB 2; Length 35;
Best Local Similarity 88.2%; Pred. No. 7,1e-13;
Matches 30; Conservative 3; Mismatches 0; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXRVWLKRLKQDVHNY 33
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Db 1 SVSEIQHLNLGKHLNSLRLVWLKRLKQDVHNY 34

RESULT 11
US-08-142-551B-32
; Sequence 32, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/898,219
; FILING DATE: 12-JUN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
```

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; INFORMATION FOR SEQ ID NO: 32:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 35
; OTHER INFORMATION: /note= "Where "Xaa" is selected
; OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
; OTHER INFORMATION: amide, or the sequence of amino acids comprising
; OTHER INFORMATION: residues 35-84 of PTH."
;
US-08-142-551B-32
;
Query Match 93.6%; Score 154.5; DB 2; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.1e-13;
Matches 30; Conservative 3; Mismatches 0; Indels 1; Gaps 1;
;
QY 1 SVSEIQ-XHNKGKHLNSKXRVWLKKLQDVHNY 33
| | | | | : | | | | | : | | | | | : | | | | |
Db 1 SVSEIQRLHNLGKHLNSLSEVWLKKLQDVHNY 34
| | | | | : | | | | | : | | | | | : | | | | |

RESULT 12
US-08-142-551B-33
; Sequence 33, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Sellick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/898,219
; FILING DATE: 12-JUN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; APPLICATION NUMBER: US 07/898,219
; FILING DATE: 12-JUN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 33:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 35
; OTHER INFORMATION: /note= "Where "Xaa" is selected
; OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
; OTHER INFORMATION: amide, or the sequence of amino acids comprising
; OTHER INFORMATION: residues 35-84 of PTH."
;
US-08-142-551B-34
;
Query Match 93.6%; Score 154.5; DB 2; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.1e-13;
Matches 30; Conservative 3; Mismatches 0; Indels 1; Gaps 1;
;
QY 1 SVSEIQ-XHNKGKHLNSKXRVWLKKLQDVHNY 33
| | | | | : | | | | | : | | | | | : | | | | |
Db 1 SVSEIQRLHNLGKHLNSLSEVWLKKLQDVHNY 34
| | | | | : | | | | | : | | | | | : | | | | |

RESULT 13
US-08-142-551B-34
; Sequence 34, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Sellick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/898,219
; FILING DATE: 12-JUN-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 34:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 35
; OTHER INFORMATION: /note= "Where "Xaa" is selected
; OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
; OTHER INFORMATION: amide, or the sequence of amino acids comprising
; OTHER INFORMATION: residues 35-84 of PTH."
;
US-08-142-551B-34
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Query Match 93.6%; Score 154.5; DB 2; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.1e-13;
Matches 30; Conservative 3; Mismatches 0; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNLSRVERVWLRKKLQDVHNY 33
DB 1 SVSEIQGLNHLNLSRVERVWLRKKLQDVHNY 34

RESULT 14
US-08-142-551B-35
; Sequence 35, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 35:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 35
; OTHER INFORMATION: /note= "Where "Xaa" is selected
; OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
; OTHER INFORMATION: amide, or the sequence of amino acids comprising
; OTHER INFORMATION: residues 35-84 of PTH."

US-08-142-551B-35

Query Match 93.6%; Score 154.5; DB 2; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.1e-13;
Matches 30; Conservative 3; Mismatches 0; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNXGKHLNLSRVERVWLRKKLQDVHNY 33
DB 1 SVSEIQGLNHLNLSRVERVWLRKKLQDVHNY 34

Query Match 93.6%; Score 154.5; DB 2; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.1e-13;
Matches 30; Conservative 3; Mismatches 0; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNLSRVERVWLRKKLQDVHNY 33
DB 1 SVSEIQGLNHLNLSRVERVWLRKKLQDVHNY 34

Db 1 SVSEIQGLNHLNLSRVERVWLRKKLQDVHNY 34

RESULT 15
US-08-142-551B-36
; Sequence 36, Application US/08142551B
; Patent No. 5814603
; GENERAL INFORMATION:
; APPLICANT: Oldenburg, Kevin R.
; APPLICANT: Selick, Harold E.
; TITLE OF INVENTION: COMPOUNDS WITH PTH ACTIVITY AND
; TITLE OF INVENTION: RECOMBINANT DNA VECTORS ENCODING SAME
; NUMBER OF SEQUENCES: 132
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Burns, Doane, Swecker & Mathis
; STREET: 699 Prince Street
; CITY: Alexandria
; STATE: Virginia
; COUNTRY: US
; ZIP: 22313
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/142,551B
; FILING DATE: 25-OCT-1993
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/077,296
; FILING DATE: 14-JUN-1993
; PRIOR APPLICATION NUMBER: US 07/965,677
; FILING DATE: 22-OCT-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Swiss, Gerald F.
; REGISTRATION NUMBER: 30,113
; REFERENCE/DOCKET NUMBER: 000324-010
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 854-7400
; TELEFAX: (415) 854-8275
; INFORMATION FOR SEQ ID NO: 36:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 35
; OTHER INFORMATION: /note= "Where "Xaa" is selected
; OTHER INFORMATION: from the group consisting of Hol, Ho, a homoserine
; OTHER INFORMATION: amide, or the sequence of amino acids comprising
; OTHER INFORMATION: residues 35-84 of PTH."

US-08-142-551B-36

Query Match 93.6%; Score 154.5; DB 2; Length 35;
Best Local Similarity 88.2%; Pred. No. 7.1e-13;
Matches 30; Conservative 3; Mismatches 0; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNXGKHLNLSRVERVWLRKKLQDVHNY 33
DB 1 SVSEIQGLNHLNLSRVERVWLRKKLQDVHNY 34

Search completed: April 2, 2005, 00:13:22
Job time : 43 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: April 2, 2005, 00:05:54 ; Search time 141 Seconds
(without alignments)
77.607 Million cell updates/sec

Title: US-09-674-597A-16
Perfect score: 165
Sequence: 1 SVSEIQXHNKXGHLNLSRVERWLRKQLQDVHNY 33

Scoring table: BLOSUM62DX
Gapop 10.0 , Gapext 0.5

Searched: 1413372 seqs, 331592847 residues

Total number of hits satisfying chosen parameters: 1413372

Minimum DB seq length: 0
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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications AA.*

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- 7: /cgn2_6/ptodata/2/pubpaa/US01_PUBCOMB.pep.*
- 8: /cgn2_6/ptodata/2/pubpaa/US00_PUBCOMB.pep.*
- 9: /cgn2_6/ptodata/2/pubpaa/US09_PUBCOMB.pep.*
- 10: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep.*
- 11: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep.*
- 12: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep.*
- 13: /cgn2_6/ptodata/2/pubpaa/US05_PUBCOMB.pep.*
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- 15: /cgn2_6/ptodata/2/pubpaa/US03_PUBCOMB.pep.*
- 16: /cgn2_6/ptodata/2/pubpaa/US02_PUBCOMB.pep.*
- 17: /cgn2_6/ptodata/2/pubpaa/US01_PUBCOMB.pep.*
- 18: /cgn2_6/ptodata/2/pubpaa/US00_PUBCOMB.pep.*
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- 20: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	154.5	93.6	34	10	US-09-843-221A-21
2	154.5	93.6	34	15	US-10-311-366-15
3	154.5	93.6	34	17	US-10-718-071-14
4	150.5	91.2	34	9	US-09-169-786-3
5	150.5	91.2	34	9	US-09-858-880-5
6	150.5	91.2	34	9	US-09-928-047B-6
7	150.5	91.2	34	10	US-09-843-221A-16
8	150.5	91.2	34	10	US-09-843-221A-17
9	150.5	91.2	34	10	US-09-843-221A-18
10	150.5	91.2	34	10	US-09-843-221A-161
11	150.5	91.2	34	10	US-09-843-221A-162
12	150.5	91.2	34	10	US-09-843-221A-163
13	150.5	91.2	34	10	US-09-928-048A-6

14	150.5	91.2	34	13	US-10-016-403-5	Sequence 5, Appli
15	150.5	91.2	34	13	US-10-097-079-1	Sequence 1, Appli
16	150.5	91.2	34	14	US-10-361-928-8	Sequence 8, Appli
17	150.5	91.2	34	14	US-10-340-484-15	Sequence 15, Appli
18	150.5	91.2	34	14	US-10-340-484-16	Sequence 16, Appli
19	150.5	91.2	34	14	US-10-340-484-17	Sequence 17, Appli
20	150.5	91.2	34	15	US-10-427-259-2	Sequence 2, Appli
21	150.5	91.2	34	15	US-10-398-449-14	Sequence 14, Appli
22	150.5	91.2	34	15	US-10-398-449-18	Sequence 18, Appli
23	150.5	91.2	34	15	US-10-311-366-13	Sequence 13, Appli
24	150.5	91.2	34	15	US-10-440-473-1	Sequence 1, Appli
25	150.5	91.2	34	15	US-10-443-693-2	Sequence 2, Appli
26	150.5	91.2	34	17	US-10-484-080-31	Sequence 31, Appli
27	150.5	91.2	34	17	US-10-638-265-82	Sequence 82, Appli
28	150.5	91.2	34	17	US-10-892-025-4	Sequence 4, Appli
29	150.5	91.2	35	17	US-10-892-025-5	Sequence 5, Appli
30	150.5	91.2	36	17	US-10-892-025-6	Sequence 6, Appli
31	150.5	91.2	37	14	US-10-168-185-9	Sequence 9, Appli
32	150.5	91.2	37	16	US-10-486-483A-8	Sequence 8, Appli
33	150.5	91.2	37	17	US-10-892-025-7	Sequence 7, Appli
34	150.5	91.2	38	9	US-09-169-786-4	Sequence 4, Appli
35	150.5	91.2	38	10	US-09-843-221A-14	Sequence 14, Appli
36	150.5	91.2	38	14	US-10-245-707-1	Sequence 1, Appli
37	150.5	91.2	38	15	US-10-398-449-20	Sequence 20, Appli
38	150.5	91.2	38	15	US-10-311-366-18	Sequence 18, Appli
39	150.5	91.2	38	17	US-10-892-025-8	Sequence 8, Appli
40	150.5	91.2	39	17	US-10-892-025-9	Sequence 9, Appli
41	150.5	91.2	40	17	US-10-892-025-10	Sequence 10, Appli
42	150.5	91.2	41	17	US-10-892-025-11	Sequence 11, Appli
43	150.5	91.2	42	13	US-10-024-918-28	Sequence 28, Appli
44	150.5	91.2	42	14	US-10-323-021-17	Sequence 17, Appli
45	150.5	91.2	42	14	US-10-323-046-39	Sequence 39, Appli

ALIGNMENTS

RESULT 1

US-09-843-221A-21
; Sequence 21, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENIUK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; TITLE OF INVENTION: RELATED PROTEIN
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 21
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTH
US-09-843-221A-21

Query Match 93.6%; Score 154.5; DB 10; Length 34;
Best Local Similarity 88.2%; Pred. No. 6.8e-12;
Matches 30; Conservative 3; Mismatches 0; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKXGHLNLSRVERWLRKQLQDVHNY 33

DB 1 SVSEIQLHNLGKHLNLSRVERWLRKQLQDVHNY 34

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RESULT 2
US-10-311-366-15
; Sequence 15, Application US/10311366
; Publication No. US20040022838A1
; GENERAL INFORMATION:
; APPLICANT: Hollick, Michael F.
; TITLE OF INVENTION: Regulation Of Cell Proliferation And Differentiation Using Topical
; TITLE OF INVENTION: Applied Peptides
; FILE REFERENCE: 1539.0310001
; CURRENT APPLICATION NUMBER: US/10/311,366
; CURRENT FILING DATE: 2002-12-16
; PRIOR APPLICATION NUMBER: PCT/US01/19650
; PRIOR FILING DATE: 2001-06-20
; PRIOR APPLICATION NUMBER: US 60/213,247
; PRIOR FILING DATE: 2000-06-22
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 15
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (8)..(8)
; OTHER INFORMATION: Nle
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (18)..(18)
; OTHER INFORMATION: Nle
; FEATURE:
; NAME/KEY: misc feature
; OTHER INFORMATION: [Nle8,18, Tyr34] hPTH (1-34)
US-10-311-366-15
Query Match 93.6%; Score 154.5; DB 15; Length 34;
Best Local Similarity 94.1%; Pred. No. 6.8e-12;
Matches 32; Conservative 1; Mismatches 0; Indels 1; Gaps 1;

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RESULT 3
US-10-718-071-14
; Sequence 14, Application US/10718071
; Publication No. US20050009847A1
; GENERAL INFORMATION:
; APPLICANT: Bertilsson, Goran
; APPLICANT: Erlandsson, Rikard
; APPLICANT: Frisen, Jonas
; APPLICANT: Haegerstrand, Anders
; APPLICANT: Heidrich, Jessica
; APPLICANT: Hellstrom, Kristina
; APPLICANT: Haggbad, Johan
; APPLICANT: Jansson, Katarina
; APPLICANT: Kortsemaa, Jarkko
; APPLICANT: Lindquist, Per
; APPLICANT: Lundh, Hanna
; APPLICANT: McGuire, Jacqueline
; APPLICANT: Mercer, Alex
; APPLICANT: Nyberg, Karl
; APPLICANT: Ossolinak, Amina
; APPLICANT: Patrone, Cesare
; APPLICANT: Ronnholm, Harriet
; APPLICANT: Wirkstrom, Lillian
; APPLICANT: Zachrisson, Olof
; TITLE OF INVENTION: COMPOUNDS AND METHODS FOR INCREASING NEUROGENESIS
; FILE REFERENCE: 21882-517 UTIL
; CURRENT APPLICATION NUMBER: US/10/718,071
; CURRENT FILING DATE: 2003-11-20

US-09-169-786-3
; Sequence 3, Application US/09169786B
; Patent No. US20020025929A1
; GENERAL INFORMATION:
; APPLICANT: Sato, Masahiko
; TITLE OF INVENTION: METHOD OF BUILDING AND MAINTAINING BONE
; FILE REFERENCE: X-11480
; CURRENT APPLICATION NUMBER: US/09/169,786B
; CURRENT FILING DATE: 1998-10-09
; EARLIER APPLICATION NUMBER: US 60/061,800
; EARLIER FILING DATE: 1997-10-14
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-169-786-3
Query Match 91.2%; Score 150.5; DB 9; Length 34;
Best Local Similarity 85.3%; Pred. No. 2.1e-11;
Matches 29; Conservative 4; Mismatches 0; Indels 1; Gaps 1;

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RESULT 5
US-09-858-880-5
; Sequence 5, Application US/09858880
; Publication No. US20020061838A1
; GENERAL INFORMATION:
; APPLICANT: Holmquist, Barton
; APPLICANT: Dormady, Daniel
; TITLE OF INVENTION: Peptide Pharmaceutical Formulations
; FILE REFERENCE: 1627.020US1
; CURRENT APPLICATION NUMBER: US/09/858,880
; CURRENT FILING DATE: 2001-05-17
; PRIOR APPLICATION NUMBER: US 60/205,377
; PRIOR FILING DATE: 2000-05-17
; PRIOR APPLICATION NUMBER: US 60/205,262
; PRIOR FILING DATE: 2000-05-19
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: FastSEQ for Windows Version 4.0
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; SEQ ID NO 5
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-858-880-5

Query Match      91.2%; Score 150.5; DB 9; Length 34;
Best Local Similarity 85.3%; Pred. No. 2.1e-11;
Matches 29; Conservative 4; Mismatches 0; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVEWLRKKLQDVHNY 33
Db 1 SVSEIQLMHNLRGKHLNSMERVEWLRKKLQDVHNF 34

RESULT 6
US-09-928-047B-6
; Sequence 6, Application US/09928047B
; Patent No. US20020160945A1
; GENERAL INFORMATION:
; APPLICANT: Cantor, Thomas
; TITLE OF INVENTION: CYCLASE INHIBITING PARATHYROID HORMONE
; FILE REFERENCE: 53221-20002.00
; CURRENT APPLICATION NUMBER: US/09/928,047B
; CURRENT FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: US 60/224,446
; PRIOR FILING DATE: 2000-08-10
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 6
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-928-047B-6

Query Match      91.2%; Score 150.5; DB 9; Length 34;
Best Local Similarity 85.3%; Pred. No. 2.1e-11;
Matches 29; Conservative 4; Mismatches 0; Indels 1; Gaps 1;

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Db 1 SVSEIQLMHNLRGKHLNSMERVEWLRKKLQDVHNF 34

RESULT 7
US-09-843-221A-16
; Sequence 16, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 16
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-843-221A-16

Query Match      91.2%; Score 150.5; DB 10; Length 34;
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Best Local Similarity 85.3%; Pred. No. 2.1e-11;
Matches 29; Conservative 4; Mismatches 0; Indels 1; Gaps 1;

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Db 1 SVSEIQLMHNLRGKHLNSMERVEWLRKKLQDVHNF 34

RESULT 8
US-09-843-221A-17
; Sequence 17, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 17
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTH
US-09-843-221A-17

Query Match      91.2%; Score 150.5; DB 10; Length 34;
Best Local Similarity 85.3%; Pred. No. 2.1e-11;
Matches 29; Conservative 4; Mismatches 0; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVEWLRKKLQDVHNY 33
Db 1 SVSEIQLMHNLRGKHLNSMERVEWLRKKLQDVHNF 34

RESULT 9
US-09-843-221A-18
; Sequence 18, Application US/09843221A
; Publication No. US20030039654A1
; GENERAL INFORMATION:
; APPLICANT: KOSTENUIK, PAUL
; APPLICANT: LIU, CHUAN-FA
; APPLICANT: LACEY, DAVID LEE
; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H
; FILE REFERENCE: A-665B
; CURRENT APPLICATION NUMBER: US/09/843,221A
; CURRENT FILING DATE: 2001-04-26
; PRIOR APPLICATION NUMBER: 60/266,673
; PRIOR FILING DATE: 2001-02-06
; PRIOR APPLICATION NUMBER: 60/214,860
; PRIOR FILING DATE: 2000-06-28
; PRIOR APPLICATION NUMBER: 60/200,053
; PRIOR FILING DATE: 2000-04-27
; NUMBER OF SEQ ID NOS: 170
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 18
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified human PTH
```

US-09-843-221A-18

Query Match 91.2%; Score 150.5; DB 10; Length 34;
Best Local Similarity 85.3%; Pred. No. 2.1e-11;
Matches 29; Conservative 4; Mismatches 0; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKGKHLNSXERVELRKKLQDVHNY 33
||||| :|||:|||||:|||||:|||||:|||||:
Db 1 SVSEIQLMHNKGKHLNSMERVELRKKLQDVHNF 34

RESULT 10

US-09-843-221A-161

; Sequence 161, Application US/09843221A

; Publication No. US20030039654A1

; GENERAL INFORMATION:

; APPLICANT: KOSTENIUK, PAUL

; APPLICANT: LIU, CHUAN-FA

; APPLICANT: LACEY, DAVID LEE

; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H

; TITLE OF INVENTION: RELATED PROTEIN

; FILE REFERENCE: A-665B

; CURRENT APPLICATION NUMBER: US/09/843,221A

; CURRENT FILING DATE: 2001-04-26

; PRIOR APPLICATION NUMBER: 60/266,673

; PRIOR FILING DATE: 2001-02-06

; PRIOR APPLICATION NUMBER: 60/214,860

; PRIOR FILING DATE: 2000-06-28

; PRIOR APPLICATION NUMBER: 60/200,053

; PRIOR FILING DATE: 2000-04-27

; NUMBER OF SEQ ID NOS: 170

; SOFTWARE: Patent in version 3.1

; SEQ ID NO 161

; LENGTH: 34

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; NAME/KEY: Preferred embodiments - PTH

; LOCATION: (34)..(34)

; OTHER INFORMATION: Optional linker and Fc domain attached at the C-terminus

US-09-843-221A-161

Query Match 91.2%; Score 150.5; DB 10; Length 34;
Best Local Similarity 85.3%; Pred. No. 2.1e-11;
Matches 29; Conservative 4; Mismatches 0; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKGKHLNSXERVELRKKLQDVHNY 33
||||| :|||:|||||:|||||:|||||:|||||:
Db 1 SVSEIQLMHNKGKHLNSMERVELRKKLQDVHNF 34

RESULT 11

US-09-843-221A-162

; Sequence 162, Application US/09843221A

; Publication No. US20030039654A1

; GENERAL INFORMATION:

; APPLICANT: KOSTENIUK, PAUL

; APPLICANT: LIU, CHUAN-FA

; APPLICANT: LACEY, DAVID LEE

; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H

; TITLE OF INVENTION: RELATED PROTEIN

; FILE REFERENCE: A-665B

; CURRENT APPLICATION NUMBER: US/09/843,221A

; CURRENT FILING DATE: 2001-04-26

; PRIOR APPLICATION NUMBER: 60/266,673

; PRIOR FILING DATE: 2001-02-06

; PRIOR APPLICATION NUMBER: 60/214,860

; PRIOR FILING DATE: 2000-06-28

; PRIOR APPLICATION NUMBER: 60/200,053

; PRIOR FILING DATE: 2000-04-27

; NUMBER OF SEQ ID NOS: 170

; SOFTWARE: Patent in version 3.1

; SEQ ID NO 162
; LENGTH: 34
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Preferred embodiments - PTH
; NAME/KEY: misc feature
; LOCATION: (34)..(34)
; OTHER INFORMATION: Optional linker and Fc domain attached at the C-terminus
US-09-843-221A-162

Query Match 91.2%; Score 150.5; DB 10; Length 34;
Best Local Similarity 85.3%; Pred. No. 2.1e-11;
Matches 29; Conservative 4; Mismatches 0; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKGKHLNSXERVELRKKLQDVHNY 33
||||| :|||:|||||:|||||:|||||:|||||:
Db 1 SVSEIQLMHNKGKHLNSMERVELRKKLQDVHNF 34

RESULT 12

US-09-843-221A-163

; Sequence 163, Application US/09843221A

; Publication No. US20030039654A1

; GENERAL INFORMATION:

; APPLICANT: KOSTENIUK, PAUL

; APPLICANT: LIU, CHUAN-FA

; APPLICANT: LACEY, DAVID LEE

; TITLE OF INVENTION: MODULATORS OF RECEPTORS FOR PARATHYROID HORMONE AND PARATHYROID H

; TITLE OF INVENTION: RELATED PROTEIN

; FILE REFERENCE: A-665B

; CURRENT APPLICATION NUMBER: US/09/843,221A

; CURRENT FILING DATE: 2001-04-26

; PRIOR APPLICATION NUMBER: 60/266,673

; PRIOR FILING DATE: 2001-02-06

; PRIOR APPLICATION NUMBER: 60/214,860

; PRIOR FILING DATE: 2000-06-28

; PRIOR APPLICATION NUMBER: 60/200,053

; PRIOR FILING DATE: 2000-04-27

; NUMBER OF SEQ ID NOS: 170

; SOFTWARE: Patent in version 3.1

; SEQ ID NO 163

; LENGTH: 34

; TYPE: PRT

; ORGANISM: Artificial Sequence

; FEATURE:

; OTHER INFORMATION: Preferred embodiments - PTH

; NAME/KEY: misc feature

; LOCATION: (34)..(34)

; OTHER INFORMATION: Optional linker and Fc domain attached at the C-terminus

US-09-843-221A-163

Query Match 91.2%; Score 150.5; DB 10; Length 34;
Best Local Similarity 85.3%; Pred. No. 2.1e-11;
Matches 29; Conservative 4; Mismatches 0; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKGKHLNSXERVELRKKLQDVHNY 33
||||| :|||:|||||:|||||:|||||:|||||:
Db 1 SVSEIQLMHNKGKHLNSMERVELRKKLQDVHNF 34

RESULT 13

US-09-928-048A-6

; Sequence 6, Application US/09928048A

; Publication No. US20030138858A1

; GENERAL INFORMATION:

; APPLICANT: Scantibodies Laboratory, Inc.

; APPLICANT: Cantor, Thomas L.

; TITLE OF INVENTION: METHODS AND DEVICES FOR DIRECT

; TITLE OF INVENTION: DETERMINATION OF CYCLASE INHIBITING PARATHYROID HORMONE

; FILE REFERENCE: 53221-20015.00

; CURRENT APPLICATION NUMBER: US/09/928,048A

; CURRENT FILING DATE: 2000-08-10

NUMBER OF SEQ ID NOS: 8
SOFTWARE: FastSeq for Windows Version 4.0
SEQ ID NO 6
LENGTH: 34
TYPE: PRT
ORGANISM: Homo sapiens
US-09-928-048A-6

Query Match 91.2%; Score 150.5; DB 10; Length 34;
Best Local Similarity 85.3%; Pred. No. 2.1e-11;
Matches 29; Conservative 4; Mismatches 0; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNKGKHLNSXERVEWLRKKLQDVHNY 33
Db 1 SVSEIQLMHNLGKHLNSMERVEWLRKKLQDVHNF 34

RESULT 14
US-10-016-403-5
Sequence 5, Application US/10016403
Publication No. US20020107505A1
GENERAL INFORMATION:
APPLICANT: Holladay, Leslie A.
TITLE OF INVENTION: MODIFICATION OF POLYPEPTIDE DRUGS TO
INCREASE ELECTROTRANSPORT FLUX
NUMBER OF SEQUENCES: 10
CORRESPONDENCE ADDRESS:
ADDRESSEE: Stroud, Stroud, Willink, Thompson & Howard
STREET: 25 West Main Street
CITY: Madison
STATE: WI
COUNTRY: USA
ZIP: 53701-2236
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/016,403
FILING DATE: 10-Dec-2001
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/466,610
FILING DATE: 1995-JUN-06
ATTORNEY/AGENT INFORMATION:
NAME: Frenchick, Grady J.
REGISTRATION NUMBER: 29,018
REFERENCE/DOCKET NUMBER: 8734.28
TELECOMMUNICATION INFORMATION:
TELEPHONE: 608-257-2281
TELEFAX: 608-257-7643
INFORMATION FOR SEQ ID NO: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 34 amino acids
TYPE: amino acid
TOPOLOGY: linear
FEATURE:
NAME/KEY: Peptide
LOCATION: 1..34
OTHER INFORMATION: /note= "parathyroid hormone"

SEQUENCE DESCRIPTION: SEQ ID NO: 5:
US-10-016-403-5
Query Match 91.2%; Score 150.5; DB 13; Length 34;
Best Local Similarity 85.3%; Pred. No. 2.1e-11;
Matches 29; Conservative 4; Mismatches 0; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNKGKHLNSXERVEWLRKKLQDVHNY 33
Db 1 SVSEIQLMHNLGKHLNSMERVEWLRKKLQDVHNF 34

RESULT 15
US-10-097-079-1
Sequence 1, Application US/10097079
Publication No. US20020132973A1
GENERAL INFORMATION:
APPLICANT: Condon, Stephen M.
Moriize, Isabelle
TITLE OF INVENTION: PEPTIDE PARATHYROID HORMONE ANALOGS
NUMBER OF SEQUENCES: 88
CORRESPONDENCE ADDRESS:
ADDRESSEE: Rhone-Poulenc Rorer Inc.
STREET: 500 Arcola Road, Mailstop 3C43
CITY: Collegeville
STATE: PA
COUNTRY: USA
ZIP: 19426
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/097,079
FILING DATE: 13-Mar-2002
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/228,990
FILING DATE: <Unknown>
APPLICATION NUMBER: US 60/046,472
FILING DATE: 14-MAY-1997
ATTORNEY/AGENT INFORMATION:
NAME: Martin Esq., Michael B.
REGISTRATION NUMBER: 37,521
REFERENCE/DOCKET NUMBER: A2678B-WO
TELECOMMUNICATION INFORMATION:
TELEPHONE: (610) 454-2793
TELEFAX: (610) 454-3808
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 34 amino acids
TYPE: amino acid
STRANDEDNESS: <Unknown>
TOPOLOGY: NO. US20020132973A1 Relevant
MOLECULE TYPE: peptide
FRAGMENT TYPE: N-terminal
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
US-10-097-079-1

Query Match 91.2%; Score 150.5; DB 13; Length 34;
Best Local Similarity 85.3%; Pred. No. 2.1e-11;
Matches 29; Conservative 4; Mismatches 0; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNKGKHLNSXERVEWLRKKLQDVHNY 33
Db 1 SVSEIQLMHNLGKHLNSMERVEWLRKKLQDVHNF 34
Search completed: April 2, 2005, 00:15:50
Job time : 142 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: April 1, 2005, 23:53:04 ; Search time 43 Seconds
(without alignments)
73.841 Million cell updates/sec

Title: US-09-674-597A-16
Perfect score: 165
Sequence: j SVSEIQXHNXGKHLNXXRVEWLKQLQDVHNY 33
Scoring table: BLOSUM62DX
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 200000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR 79: *
1: pir1: *
2: pir2: *
3: pir3: *
4: pir4: *

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	150.5	91.2	115	1 PTHU	parathyroid hormon
2	145.5	88.2	115	1 PTPG	parathyroid hormon
3	145.5	88.2	115	2 JCA202	parathyroid hormon
4	142.5	86.4	115	1 PTBO	parathyroid hormon
5	133.5	80.9	115	2 A05091	parathyroid hormon
6	125.5	76.1	105	2 I51851	parathyroid hormon
7	102.5	62.1	119	2 A34937	parathyroid hormon
8	65	39.4	3678	2 S28916	dystrophin - mouse
9	62	37.6	1257	1 I58383	retinoblastoma bin
10	60	36.4	764	1 B8HU	complement factor
11	58.5	35.5	1172	2 T00065	hypothetical prote
12	58	35.2	3685	1 A27605	dystrophin, muscle
13	57	34.5	118	2 T44470	transposase tnpD I
14	57	34.5	240	1 TQSC34	transposase - Esch
15	57	34.5	296	2 S0261	probable transposa
16	56	33.9	334	2 F8462	AlGI-like protein,
17	56	33.9	898	2 C84854	hypothetical prote
18	55	33.3	513	1 R9SCAY	transcription regu
19	55	33.3	513	2 F90866	transcription regu
20	55	33.3	513	2 C85752	hypothetical prote
21	54	32.7	229	2 E85806	hypothetical prote
22	54	32.7	229	2 D90958	hypothetical prote
23	54	32.7	286	2 B69834	conserved hypothet
24	54	32.7	295	2 F90938	hypothetical prote
25	54	32.7	295	2 B85664	transposase for IS
26	54	32.7	295	2 D90801	hypothetical prote
27	54	32.7	295	2 B85613	probable transposa
28	54	32.7	295	2 B85787	probable transposa
29	54	32.7	295	2 T00315	transposase - Esch

RESULT 1

PTHU

parathyroid hormone precursor [validated] - human

N:Alternate names: proparathyroid hormone

C:Species: Homo sapiens (man)

C>Date: 24-Apr-1984 #sequence revision 19-Jan-1996 #text change 09-Jul-2004

C:Accession: A19339; S53790; A93169; S21199; A93789; A93783; A90387; A90426; A94410; I38;

R:Vasicek, T.J.; McDevitt, B.E.; Freeman, M.W.; Fennick, B.J.; Hendy, G.N.; Potts Jr., J.T.

Proc. Natl. Acad. Sci. U.S.A. 80, 2127-2131, 1983

A:Title: Nucleotide sequence of the human parathyroid hormone gene.

A:Reference number: A19339; MUID:83169834; PMID:6220408

A:Accession: A19339

A:Molecule type: DNA

A:Residues: 1-115 <VAS>

A:Cross-References: UNIPROT:P01270; GB:J00301; NID:gl90702; PIDN:AAA60215.1; PID:gl90704

R:Yamaguchi, T.; Fukase, M.; Sugimoto, T.; Kido, H.; Chihara, K.

Biol. Chem. Hoppe-Seyler 375, 821-824, 1994

A:Title: Purification of meprin from human kidney and its role in parathyroid hormone des

A:Reference number: S53790; MUID:95225988; PMID:7710697

A:Accession: S53790

A:Molecule type: protein

A:Residues: 'X',33,'X',35-46;65-84;105-110 <YAM>

A>Note: peptides generated in vitro and in vivo by meprin; peptide cleavage also occurred

R:Jacobs, J.W.; Kemper, B.; Niall, H.D.; Habener, J.F.; Potts Jr., J.T.

Nature 249, 155-157, 1974

A:Title: Structural analysis of human parathyroid hormone by a new microsequencing ap

A:Reference number: A93169; MUID:74174967; PMID:4833516

A:Accession: A93169

A:Molecule type: protein

A:Residues: 26-37 <JAC>

R:Olstad, O.K.; Reppe, S.; Gabrielsen, O.S.; Hartmanis, M.; Blingamo, O.R.; Gautvik, V.T.

Eur. J. Biochem. 205, 311-319, 1992

A:Title: Isolation and characterization of two biologically active O-glycosylated forms c

A:Reference number: S21199; MUID:92209518; PMID:1555591

A:Accession: S21199

A:Molecule type: protein

A:Residues: 32-114,'N' <OLS>

A>Note: cloned sequence expressed in Saccharomyces cerevisiae exhibited O-glycosylation;

R:Niall, H.D.; Sauer, R.T.; Jacobs, J.W.; Keutmann, H.T.; Segre, G.V.; O'Riordan, J.L.H.;

Proc. Natl. Acad. Sci. U.S.A. 71, 384-388, 1974

A:Title: The amino-acid sequence of the amino-terminal 37 residues of human parathyroid

A:Reference number: A93789; MUID:74111656; PMID:4521809

A:Accession: A93789

A:Molecule type: protein

A:Residues: 32-68 <NIA>

R:Brewer Jr., H.B.; Fairwell, T.; Ronan, R.; Sizemore, G.W.; Arnaud, C.D.

Proc. Natl. Acad. Sci. U.S.A. 69, 3585-3588, 1972

A:Title: Human parathyroid hormone: amino-acid sequence of the amino-terminal residues 1-

A:Reference number: A93783; MUID:73070429; PMID:4509319

A:Accession: A93783

A:Molecule type: protein

A:Residues: 32-52,'Q',54-58,'K',60,'L',62-65 <BRE>
A:Note: this sequence was determined by sequenator and mass spectroscopic identification
R:Keutmann, H.T.; Niall, H.D.; O'Riordan, J.L.H.; Potts Jr., J.T.
Biochemistry 14, 1842-1847, 1975
A:Title: A reinvestigation of the amino-terminal sequence of human parathyroid hormone.
A:Reference number: A90387; MUID:75146516; PMID:1125201
A:Accession: A90387
A:Molecule type: protein
A:Residues: 52-75 <KE3>
R:Keutmann, H.T.; Sauer, M.M.; Hendy, G.N.; O'Riordan, J.L.H.; Potts Jr., J.T.
Biochemistry 17, 5723-5729, 1978
A:Title: Complete amino acid sequence of human parathyroid hormone.
A:Reference number: A90426; MUID:79082855; PMID:728431
A:Accession: A90426
A:Molecule type: protein
A:Residues: 61-106,'D',108-115 <KEU>
R:Keutmann, H.T.; Niall, H.D.; Jacobs, J.W.; Barling, P.M.; Hendy, G.N.; O'Riordan, J.L.
in Calcium-regulating Hormones, Talmadge, R.V., Owen, M., and Parsons, J.A., eds., pp.9-
A:Reference number: A94410
A:Accession: A94410
A:Molecule type: protein
A:Residues: 75-100 <KE2>
R:Tregear, G.W.; van Rietschoten, J.; Green, E.; Niall, H.D.; Keutmann, H.T.; Parsons, J.
Hoppe-Seyler's Z. Physiol. Chem. 355, 415-421, 1974
A:Title: Solid-phase synthesis of the biologically active N-terminal 1-34 peptide of human
A:Reference number: A91660; MUID:75059220; PMID:4474131
A:Contents: annotation: synthesis of residues 32-65
A:Note: the biologically active amino-terminal 34 residues of parathyroid hormone were
at renal adenylate cyclase assay and with the bovine hormone's active region in the chick
R:Andreatta, R.H.; Hartmann, A.; Joehl, A.; Kamber, B.; Maier, R.; Riniker, B.; Rittel,
Helv. Chim. Acta 56, 470-473, 1973
A:Title: Synthese der Sequenz 1-34 von menschlichem Parat-hormon.
A:Reference number: A91635; MUID:73227467; PMID:4721748
A:Contents: annotation: synthesis of residues 32-65
A:Note: the amino-terminal 34 residues of the parathyroid hormone sequence as determined
into thyroparathyroidectomized rats caused a distinct increase in plasma calcium level
R:Hendy, G.N.; Kronenberg, H.M.; Potts, J.T.
Proc. Natl. Acad. Sci. U.S.A. 78, 7365-7369, 1981
A:Title: Nucleotide sequence of cloned cDNAs encoding human preproparathyroid hormone.
A:Reference number: 138342; MUID:82150870; PMID:6950381
A:Accession: 138342
A:Status: translated from GB/EMBL/DBDJ
A:Molecule type: mRNA
A:Residues: 1-115 <RES>
A:Cross-references: EMBL:V00597; NID:g37143; PIDN:CAA23843.1; PID:g37144
C:Genetics:
A:Gene: GDB:PTH
A:Cross-references: GDB:119522; OMIM:168450
A:Map position: 11p15.2-11p15.1
A:Introns: 29/2
A:Note: the first intron occurs before the initiator codon
C:Function:
A:Description: factor in homeostatic control of plasma calcium and phosphate; released b
counter to calcitonin
C:Superfamily: parathyroid hormone; parathyroid hormone homology
C:Keywords: calcium; hormone; parathyroid gland; plasma
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-31/Domain: propeptide #status experimental <PRO>
F:30-64/Domain: parathyroid hormone homology <PTH>
F:32-115/Product: parathyroid hormone #status experimental <MAT>
Query Match 91.2%; Score 150.5; DB 1; Length 115;
Best Local Similarity 85.3%; Pred. No. 4.5e-11;
Matches 29; Conservative 4; Mismatches 0; Indels 1; Gaps 1;
Qy 1 SVSEIQ-XHNKGKHLNSXERVELRKKLQDVHNY 33
||||| :||:||||:|||||:|||||:
Db 32 SVSEIQLMHNLGKHLNSXERVELRKKLQDVHNF 65
RESULT 2
FTPG
parathyroid hormone precursor - pig

C:Species: Sus scrofa domestica (domestic pig)
C>Date: 24-Apr-1984 #sequence revision 12-Apr-1996 #text_change 09-Jul-2004
C:Accession: B26806; A90390; A90376; A01535
R:Schmelzer, H.J.; Gross, G.; Widera, G.; Mayer, H.
Nucleic Acids Res. 15, 6740, 1987
A:Title: Nucleotide sequence of a full-length cDNA clone encoding preproparathyroid horm
A:Reference number: A26806; MUID:87316938; PMID:3628009
A:Accession: B26806
A:Status: not compared with conceptual translation
A:Molecule type: mRNA
A:Residues: 1-115 <SCH>
A:Cross-references: UNIPROT:P01269; GB:X05722; GB:X00409; NID:g1838; PIDN:CAA29193.1; PII
R:Chu, L.H.; Huang, W.Y.; Littledike, E.T.; Hamilton, J.W.; Cohn, D.V.
Biochemistry 14, 3631-3635, 1975
A:Title: Porcine preparathyroid hormone. Identification, biosynthesis, and partial amino
A:Reference number: A90390; MUID:76019954; PMID:1164500
A:Accession: A90390
A:Molecule type: protein
A:Residues: 26-115 <CHU>
R:Sauer, R.T.; Niall, H.D.; Hogan, M.L.; Keutmann, H.T.; O'Riordan, J.L.H.; Potts Jr., J.
Biochemistry 13, 1994-1999, 1974
A:Title: The amino acid sequence of porcine parathyroid hormone.
A:Reference number: A90376; MUID:74253317; PMID:4840833
A:Accession: A90376
A:Molecule type: protein
A:Residues: 32-109 <SAU>
R:Brewer Jr., H.B.; Fairwell, T.; Rittel, W.; Littledike, T.; Arnaud, C.D.
Am. J. Med. 56, 759-766, 1974
A:Title: Recent studies on the chemistry of human, bovine and porcine parathyroid hormone
A:Reference number: A90030; MUID:74173303; PMID:4598526
A:Contents: annotation
C:Superfamily: parathyroid hormone; parathyroid hormone homology
C:Keywords: calcium; hormone; parathyroid gland
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-31/Domain: propeptide #status experimental <PRO>
F:30-64/Domain: parathyroid hormone homology <PTH>
F:32-115/Product: parathyroid hormone #status experimental <MAT>
Query Match 88.2%; Score 145.5; DB 1; Length 115;
Best Local Similarity 82.4%; Pred. No. 1.8e-10;
Matches 28; Conservative 5; Mismatches 0; Indels 1; Gaps 1;
Qy 1 SVSEIQ-XHNKGKHLNSXERVELRKKLQDVHNY 33
||||| :||:||||:|||||:|||||:
Db 32 SVSEIQLMHNLGKHLNSXERVELRKKLQDVHNF 65
RESULT 3
JC4202
parathyroid hormone precursor - dog
C:Species: Canis lupus familiaris (dog)
C>Date: 10-Sep-1995 #sequence_revision 27-Oct-1995 #text_change 09-Jul-2004
C:Accession: JC4202
R:Rosol, T.J.; Steilmeyer, C.L.; McCauley, L.K.; Groene, A.; DeWille, J.W.; Capen, C.C.
Gene 160, 241-243, 1995
A:Title: Sequences of the cDNAs encoding canine parathyroid hormone-related protein and I
A:Reference number: JC4201; MUID:95369696; PMID:7642102
A:Accession: JC4202
A:Molecule type: mRNA
A:Residues: 1-115 <ROS>
A:Cross-references: UNIPROT:P52212; GB:U15662; NID:g558915; PIDN:AAA82584.1; PID:g558916
C:Superfamily: parathyroid hormone; parathyroid hormone homology
C:Keywords: hormone
F:1-31/Domain: signal sequence #status predicted <SIG>
F:30-64/Domain: parathyroid hormone homology <PTH>
F:32-115/Product: parathyroid hormone #status predicted <MAT>
Query Match 88.2%; Score 145.5; DB 2; Length 115;
Best Local Similarity 82.4%; Pred. No. 1.8e-10;
Matches 28; Conservative 5; Mismatches 0; Indels 1; Gaps 1;
Qy 1 SVSEIQ-XHNKGKHLNSXERVELRKKLQDVHNY 33
||||| :||:||||:|||||:|||||:

Db 32 SVSEIQFMNHLGKHLSSMERVEWLKRLQDVHNF 65

RESULT 4

PTBO

A:Molecule type: DNA
A:Residues: 1-115 <WEA>
A:Cross-references: UNIPROT:P01268; GB:K01938
R:Kronenberg, H.M.; McDevitt, B.E.; Majzoub, J.A.; Nathans, J.; Sharp, P.A.; Potts Jr.,
Proc. Natl. Acad. Sci. U.S.A. 76, 4981-4985, 1979
A:Title: Cloning and nucleotide sequence of DNA coding for bovine preproparathyroid hormone
A:Reference number: A93835; MUID:80056617; PMID:388425
A:Accession: A93835
A:Molecule type: DNA
A:Residues: 1-115 <KRO>
A:Cross-references: GB:J00023; NID:984; PIDN:CAA23439.1; PID:985
A:Note: The authors translated the codon GAA for residue 50 as Gly
R:Hamilton, J.W.; Niall, H.D.; Jacobs, J.W.; Keutmann, H.T.; Potts Jr., J.T.; Cohn, D.V.
Proc. Natl. Acad. Sci. U.S.A. 71, 653-656, 1974
A:Title: The N-terminal amino-acid sequence of bovine parathyroid hormone.
A:Reference number: A93793; MUID:74142666; PMID:4522780
A:Accession: A93793
A:Molecule type: protein
A:Residues: 26-115 <HAM>
R:Niall, H.D.; Keutmann, H.T.; Sauer, R.; Hogan, M.L.; Dawson, B.F.; Aurbach, G.D.; Potts
Hoppe-Seyler's Z. Physiol. Chem. 351, 1586-1588, 1970
A:Title: The amino acid sequence of bovine parathyroid hormone I.
A:Reference number: A91648; MUID:71076162; PMID:5531031
A:Accession: A91648
A:Molecule type: protein
A:Residues: 32-115 <NTA>
R:Brewer Jr., H.B.; Ronan, R.
Proc. Natl. Acad. Sci. U.S.A. 67, 1862-1869, 1970
A:Title: Bovine parathyroid hormone: amino acid sequence.
A:Reference number: A93773; MUID:71063634; PMID:5275384
A:Accession: A93773
A:Molecule type: protein
A:Residues: 32-115 <BRE>
R:Potts Jr., J.T.; Tregear, G.W.; Keutmann, H.T.; Niall, H.D.; Sauer, R.; Deftos, L.J.;
Proc. Natl. Acad. Sci. U.S.A. 68, 63-67, 1971
A:Title: Synthesis of a biologically active N-terminal tetraatriacontapeptide of parathyroid hormone
A:Reference number: A93776; MUID:71091588; PMID:4322265
A:Contents: annotation; synthesis of residues 32-65
A:Note: the synthetic peptide was active in vivo and in vitro
R:Brewer Jr., H.B.; Fairwell, T.; Rittel, W.; Littledike, T.; Arnaud, C.D.
Am. J. Med. 56, 759-766, 1974
A:Title: Recent studies on the chemistry of human, bovine and porcine parathyroid hormone
A:Reference number: A90030; MUID:74173303; PMID:4598526
A:Contents: annotation
R:Weaver, C.A.; Gordon, D.F.
Proc. Natl. Acad. Sci. U.S.A. 78, 4073-4077, 1981
A:Title: Introduction by molecular cloning of artifactual inverted sequences at the 5' end of the parathyroid hormone gene
A:Reference number: I45975; MUID:82037785; PMID:6170060
A:Accession: I45975
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-115 <WE2>
A:Cross-references: GB:J00024; NID:9163642; PIDN:AAA30747.1; PID:g163643
R:Weaver, C.A.; Gordon, D.F.
Mol. Cell. Endocrinol. 28, 411-424, 1982
A:Title: Nucleotide sequence of bovine parathyroid hormone messenger RNA.
A:Reference number: I45976; MUID:83105964; PMID:6185374
A:Accession: I45976
A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: mRNA
A:Residues: 1-115 <WE3>
A:Cross-references: GB:M25082; NID:g163644; PIDN:AAA30748.1; PID:g163645
C:Genetics:
A:Gene: PTH
A:Introns: 29/2
C:Superfamily: parathyroid hormone; parathyroid hormone homology
C:Keywords: hormone
F:1-35/Domain: signal sequence #status predicted <SIG>
F:26-115/Product: parathyroid hormone #status experimental <PMAT>
F:26-31/Domain: propeptide #status experimental <PRO>
F:30-64/Domain: parathyroid hormone homology <PTH>
F:32-115/Product: parathyroid hormone #status experimental <MAT>

Query Match 86.4%; Score 142.5; DB 1; Length 115;
Best Local Similarity 79.4%; Pred. No. 4.2e-10;
Matches 27; Conservative 6; Mismatches 0; Indels 1; Gaps 1;

QY 1 SVSEIQ-FHNXGKHLNLSXERVEWLKRLQDVHNY 33
:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 32 AVSEIQFMNHLGKHLSSMERVEWLKRLQDVHNF 65

RESULT 5

A05091

parathyroid hormone precursor - rat

C:Species: Rattus norvegicus (Norway rat)

C:Date: 05-Jun-1987 #sequence_revision 05-Jun-1987 #text_change 09-Jul-2004

C:Accession: A05091; A26806

R:Heinrich, G.; Kronenberg, H.M.; Potts Jr., J.T.; Habener, J.F.

J. Biol. Chem. 259, 3320-3323, 1984

A:Reference number: A05091; MUID:84135846; PMID:6321505

A:Accession: A05091

A:Molecule type: DNA

A:Residues: 1-115 <HEI>

A:Cross-references: UNIPROT:P04089; GB:K01268; NID:9206483; PIDN:AAA41979.1; PID:g206485

A:Note: the authors translated the codon GAA for residue 87 as Asp

R:Schmelzer, H.J.; Gross, G.; Wiedera, G.; Mayer, H.

Nucleic Acids Res. 15, 6740, 1987

A:Title: Nucleotide sequence of a full-length cDNA clone encoding preproparathyroid hormone

A:Reference number: A26806; MUID:87316938; PMID:3628009

A:Accession: A26806

A:Status: preliminary; not compared with conceptual translation

A:Molecule type: mRNA

A:Residues: 1-115 <SCH>

A:Cross-references: GB:X05721; GB:Y00409; NID:g56002; PIDN:CAA29192.1; PID:g56003

C:Genetics:

A:Introns: 29/3

C:Superfamily: parathyroid hormone; parathyroid hormone homology

F:30-64/Domain: parathyroid hormone homology <PTH>

Query Match 80.9%; Score 133.5; DB 2; Length 115;

Best Local Similarity 73.5%; Pred. No. 5.1e-09;

Matches 25; Conservative 7; Mismatches 1; Indels 1; Gaps 1;

QY 1 SVSEIQ-FHNXGKHLNLSXERVEWLKRLQDVHNY 33
:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 32 AVSEIQFMNHLGKHLSSMERVEWLKRLQDVHNF 65

RESULT 6

I51851

parathyroid hormone - rat (fragment)

C:Species: Rattus norvegicus (Norway rat)

C:Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 16-Jul-1999

C:Accession: I51851

R:Schmelzer, H.

Adv. Gene Technol. 21, 228-229, 1984

A:Title: Nucleotide sequence of cloned cDNA encoding rat prepro parathyroid hormone.

A:Reference number: I51851

A:Accession: I51851

A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: mRNA

A:Gene: GDB:BF
A:Cross-references: GDB:119726; OMIM:138470
A:Map position: 6p21.3-6p21.3
A:Introns: 21/3; 99/3; 346/1; 424/1; 470/1; 502/3; 542/1; 593/2; 619/1; 652/3; 69
A:Note: The list of introns may be incomplete
A:Note: gene is located in the major histocompatibility complex, class III region
C:Complex: complement factor B initially forms an inactive complex with complement fact
ment factor C3b forming active C3/C5 convertase; Ba is released
C:Function:
A:Description: Bb is a serine proteinase; C3/C5 convertase cleaves complement C3 alpha c
al
A:Pathway: complement alternate pathway
C:Superfamily: complement B/C2; complement factor H repeat homology; trypsin homology; v
C:Keywords: acute phase; complement alternate pathway; duplication; glycoprotein; hydro
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-764/Product: complement factor B #status experimental <WAT>
F:26-259/Product: complement factor Ba fragment #status experimental <BAF>
F:37-98/Domain: complement factor H repeat homology <FH1>
F:103-158/Domain: complement factor H repeat homology <FH2>
F:165-218/Domain: complement factor H repeat homology <FH3>
F:260-764/Product: C3/C5 convertase Bb fragment #status experimental <BBF>
F:268-458/Domain: von Willebrand factor type A repeat homology <VFA>
F:482-752/Domain: trypsin homology #status atypical <TRY>
F:37-76.62-98.103-145.131-158.165-205.191-218.478-596.511-527.599-615.656-682.695-725/D
F:122.142.285.378/Binding site: carboxylate (Asn) (covalent) #status experimental
F:258-260/Cleavage site: Arg-Lys (complement factor D) #status experimental
F:526.576.699/Active site: His, Asp, Ser #status experimental
Query Match 36.4%; Score 60; DB 1; Length 764;
Best Local Similarity 34.6%; Pred. NO. 26;
Matches 9; Conservative 10; Mismatches 7; Indels 0; Gaps 0;
QY 4 EIQHXGKHLNSKXRVWMLKKLQD 29
DB 733 QVPAHDFHINLFOVLPWLKRLQD 758
RESULT 11
T00065
hypothetical protein KIAA0442 - human (fragment)
C:Species: Homo sapiens (man)
C>Date: 22-Jan-1999 #sequence_revision 22-Jan-1999 #text_change 09-Jul-2004
C:Accession: T00065
R:Ishikawa, K.; Nagase, T.; Nakajima, D.; Seki, N.; Ohira, M.; Miyajima, N.; Tanaka, A.
DNA Res. 4, 307-313, 1997
A:Title: Prediction of the coding sequences of unidentified human genes. VIII. 78 new c
A:Reference number: Z14084; MUID:98116655; PMID:9453477
A:Accession: T00065
A:Status: preliminary; translated from GB/EMBL/DBDJ
A:Molecule type: mRNA
A:Residues: 1-1172 <ISH>
A:Cross-references: UNIPROT:Q8WXX7; EMBL:AB007902; NID:g2662164; PIDN:BAA23714.1; PID:g2
A:Experimental source: brain
C:Genetics:
A:Note: KIAA0442
Query Match 35.5%; Score 58.5; DB 2; Length 1172;
Best Local Similarity 36.1%; Pred. NO. 60;
Matches 13; Conservative 8; Mismatches 10; Indels 5; Gaps 1;
QY 1 SVSEIQHXGKHLNSKXRVWMLKKLQD 31
DB 1049 SVDPRHERGGHDLRERLHMLREDYEHTRLHSHVH 1084
RESULT 12
A27605
dystrophin, muscle - human
N:Alternate names: Duchenne muscular dystrophy protein
C:Species: Homo sapiens (man)
C>Date: 19-Nov-1988 #sequence_revision 27-Jun-1994 #text_change 09-Jul-2004
C:Accession: A27605; S07710; S052291; A40134; S06051; S10346; S02243; S02242; S02
R:Koenig, M.; Monaco, A.P.; Kunkel, L.M.

Cell 53, 219-228, 1988
A:Title: The complete sequence of dystrophin predicts a rod-shaped cytoskeletal protein.
A:Reference number: A27605; MUID:88194521; PMID:3282674
A:Accession: A27605
A:Molecule type: mRNA
A:Residues: 1-3685 <KOE>
A:Cross-references: UNIPROT:Q14205; GB:M18533; NID:g181856; PIDN:AAAS3189.1; PID:g181857
R:Rosenthal, A.; Speer, A.; Billwiltz, H.; Cross, G.S.; Forrest, S.M.; Davies, K.E.
Nucleic Acids Res. 17, 5391, 1989
A:Title: Two human cDNA molecules coding for the Duchenne muscular dystrophy (DMD) locus
A:Reference number: S07710; MUID:89345106; PMID:2668885
A:Accession: S07710
A:Status: nucleic acid sequence not shown; translation not shown
A:Molecule type: mRNA
A:Residues: 1-132, 'P', 134-622, 'I', 624-783, 'G', 785-1196, 'F', 1198-1376, 'N', 1378-1468, 'Q', 14
A:Cross-references: EMBL:X14298; NID:g30845; PIDN:CAA32479.1; PID:g30846
A:Note: this sequence was submitted to the EMBL Data Library, February 1989
R:Koenig, M.; Hoffman, E.P.; Bertelson, C.J.; Monaco, A.P.; Feener, C.; Kunkel, L.M.
Cell 50, 509-517, 1987
A:Title: Complete cloning of the Duchenne muscular dystrophy (DMD) cDNA and preliminary s
A:Reference number: A90897; MUID:87273512; PMID:3607877
A:Accession: A27162
A:Molecule type: mRNA
A:Residues: 1-497 <KOE>
A:Cross-references: GB:M18533
R:Cross, G.S.; Speer, A.; Rosenthal, A.; Forrest, S.M.; Smith, T.J.; Edwards, Y.; Flint,
EMBO J. 6, 3277-3283, 1987
A:Title: Deletions of fetal and adult muscle cDNA in Duchenne and Becker muscular dystro
A:Reference number: S01263; MUID:88111512; PMID:3428261
A:Accession: S05291
A:Molecule type: mRNA
A:Residues: 404-556, 'T', 558-610, 'K', 612-622, 'I', 624-664, 'M', 665-783, 'G', 785-1137, 'PN' <C
A:Cross-references: EMBL:X06178
A:Note: 475-Ile and 529-Glu were also found
R:Hoffman, E.P.; Monaco, A.P.; Feener, C.C.; Kunkel, L.M.
Science 238, 347-350, 1987
A:Title: Conservation of the Duchenne muscular dystrophy gene in mice and humans.
A:Reference number: A40134; MUID:88018015; PMID:3659917
A:Accession: A40134
A:Molecule type: mRNA
A:Residues: 491-1207 <HOF>
A:Cross-references: GB:M18533
R:Blonden, L.A.J.; den Dunnen, J.T.; van Paassen, H.M.B.; Wapenaar, M.C.; Grootsholten,
Nucleic Acids Res. 17, 5611-5621, 1989
A:Title: High resolution deletion breakpoint mapping in the DMD gene by whole cosmid hybr
A:Reference number: S06051; MUID:89345155; PMID:2569720
A:Accession: S06051
A:Status: translation not shown
A:Molecule type: DNA
A:Residues: 2147-2204 <BLO>
A:Cross-references: EMBL:X51934
R:Speer, A.; Billwiltz, H.; Huth, A.; Coutelle, C.; England, S.; Love, D.; Davies, K.E.
submitted to the EMBL Data Library, February 1990
A:Reference number: S10346
A:Accession: S10346
A:Molecule type: DNA
A:Residues: 2438-2480 <SPE>
A:Cross-references: EMBL:X51934
R:Chamberlain, J.S.; Gibbs, R.A.; Ranier, J.E.; Nguyen, P.N.; Caskey, C.T.
Nucleic Acids Res. 16, 11141-11156, 1988
A:Title: Deletion screening of the Duchenne muscular dystrophy locus via multiplex DNA an
A:Reference number: S02109; MUID:89083552; PMID:3205741
A:Accession: S02243
A:Status: preliminary; translation not shown
A:Molecule type: DNA
A:Residues: 665-722 <CHA>
A:Cross-references: EMBL:X13045; NID:g30825; PIDN:CAA31451.1; PID:g1335048
A:Accession: S02242
A:Status: preliminary; translation not shown
A:Molecule type: DNA
A:Residues: 2098-2146 <CH2>
A:Cross-references: EMBL:X13046; NID:g30827; PIDN:CAA31452.1; PID:g809549
A:Accession: S02244

A>Status: preliminary; translation not shown
A:Molecule type: DNA
A:Residues: 2147-2204 <CH3>
A:Cross-references: EMBL:X13048; NID:g30833; PIDN:CAA31454.1; PID:g1335051
A:Accession: S02109
A>Status: preliminary; translation not shown
A:Molecule type: DNA
A:Residues: 2305-2365, 'K' <CH4>
A:Cross-references: EMBL:X13047; NID:g30831; PIDN:CAA31453.1; PID:g1335050
R:Ginjar, I.H.B.; van Paassen, M.H.M.B.; den Dunnen, J.J.T.; van Ommen, G.G.J.B.
submitted to the EMBL Data Library, March 1992
A:Description: Sequence of Duchenne muscular dystrophy gene exon 60, located directly 5'
A:Reference number: S23736
A:Accession: S23736
A>Status: preliminary
A:Molecule type: DNA
A:Residues: 2980-2995, 'K', 2997-3028 <GIN>
A:Cross-references: EMBL:X11860
R:Heilig, R.; Lemaire, C.; Mandel, J.L.
Nucleic Acids Res. 15, 9129-9142, 1987
A:Title: A 230kb cosmid walk in the Duchenne muscular dystrophy gene: detection of a cor
A:Reference number: S09071; MUID:88067745; PMID:2825128
A:Accession: S09071
A:Molecule type: DNA
A:Residues: 'SGGSHWTHCSLIYRLPLTLI'; 218-277 <HEI>
A:Cross-references: EMBL:X06293; EMBL:Y00494
A:Note: sequence N-terminal of residue 218 correspond to a putative exon
R:Roberts, R.G.; Coffey, A.J.; Bobrow, M.; Bentley, D.R.
Genomics 16, 536-538, 1993
A:Title: Exon structure of the human dystrophin gene.
A:Reference number: 154186; MUID:93300536; PMID:8314593
A:Accession: 154186
A>Status: nucleic acid sequence not shown; translation not shown; translated from GB/EMBL
A:Molecule type: DNA
A:Residues: 984-1411 <RE3>
A:Cross-references: GB:L05642; NID:g181892; PIDN:AAA74506.1; PID:g950344
A:Accession: 168509
A>Status: nucleic acid sequence not shown; translation not shown; translated from GB/EMBL
A:Molecule type: DNA
A:Residues: 1776-1913 <RE2>
A:Cross-references: GB:L05646; NID:g181896; PIDN:AAA74507.1; PID:g950345
A:Accession: 168510
A>Status: nucleic acid sequence not shown; translation not shown; translated from GB/EMBL
A:Molecule type: DNA
A:Residues: 2850-2979 <ROB>
A:Cross-references: GB:L05649; NID:g181899; PIDN:AAA74508.1; PID:g950346
R:Roberts, R.G.; Coffey, A.J.; Bobrow, M.; Bentley, D.R.
Genomics 13, 942-950, 1992
A:Title: Determination of the exon structure of the distal portion of the dystrophin gene
A:Reference number: 154175; MUID:92372062; PMID:1505985
A:Accession: 154175
A>Status: nucleic acid sequence not shown; translation not shown; translated from GB/EMBL
A:Molecule type: DNA
A:Residues: 2980-3685 <RES>
A:Cross-references: GB:M6903; NID:g181881; PIDN:AAA35779.1; PID:g457519
R:Enghrennes, J.; Hillers, M.; Junkes, B.; Pfordt, M.; Schwinger, E.; Vosberg, H.P.
Genomics 10, 551-557, 1991
A:Title: Analysis of a dystrophin gene deletion by amplification of mRNA isolated from D
A:Reference number: 154166; MUID:91365360; PMID:1889805
A:Accession: 154166
A>Status: translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 2250-2254 <RE4>
A:Cross-references: GB:554699; NID:g2353303; PIDN:AAB19754.1; PID:g235304
R:Feener, C.A.; Koenig, M.; Kunkel, L.M.
Nature 338, 509-511, 1989
A:Title: Alternative splicing of human dystrophin mRNA generates isoforms at the carboxy
A:Reference number: S03902; MUID:89181947; PMID:2648158
A:Accession: S03902
A:Molecule type: mRNA
A:Residues: 'MED', 12-32, 3377-3408 <FE>
A:Cross-references: EMBL:X15148
C:Comment: Dystrophin is proposed to play a role in anchoring the cytoskeleton to the pl

C:Comment: Defects in dystrophin are responsible for the Duchenne/Becker muscular dystrophy

C:Genetics: GDB:310200

A:Gene: GDB:310200

A:Cross-references: GDB:119850; OMIM:310200

A:Map position: Xp21.2-Xp21.2

A:Introns: 11/1; 31/3; 62/3; 88/3; 119/3; 177/2; 217/1; 277/3; 320/3; 383/3; 444/2; 494/3; 3055/1; 3075/2; 3096/1; 3121/1; 3188/2; 3217/1; 3269/3; 3325/2; 3362/3; 3408/2; 3421/1

A:Note: The list of introns is incomplete

C:Superfamily: dystrophin; alpha-actinin actin-binding domain homology; spectrin/dystrophin

C:Keywords: actin binding; alternative splicing; calmodulin binding; cytoskeleton; leucine

E:14-233/Domain: alpha-actinin actin-binding domain homology <ACT>

E:253-327/Region: hinge

F:338-447/Domain: spectrin/dystrophin repeat homology <SP01>

F:448-556/Domain: spectrin/dystrophin repeat homology <SP02>

F:558-667/Domain: spectrin/dystrophin repeat homology <SP03>

F:668-717/Region: hinge

F:718-828/Domain: spectrin/dystrophin repeat homology <SP04>

F:836-934/Domain: spectrin/dystrophin repeat homology <SP05>

F:938-1045/Domain: spectrin/dystrophin repeat homology <SP06>

F:1047-1154/Domain: spectrin/dystrophin repeat homology <SP07>

F:1156-1263/Domain: spectrin/dystrophin repeat homology <SP08>

F:1265-1367/Domain: spectrin/dystrophin repeat homology <SP09>

F:1372-1477/Domain: spectrin/dystrophin repeat homology <SP10>

F:1478-1568/Domain: spectrin/dystrophin repeat homology #status atypical <SP11>

F:1570-1676/Domain: spectrin/dystrophin repeat homology <SP12>

F:1678-1782/Domain: spectrin/dystrophin repeat homology <SP13>

F:1784-1875/Domain: spectrin/dystrophin repeat homology #status atypical <SP14>

F:1876-1982/Domain: spectrin/dystrophin repeat homology <SP15>

F:1984-2101/Domain: spectrin/dystrophin repeat homology <SP16>

F:2103-2208/Domain: spectrin/dystrophin repeat homology <SP17>

F:2210-2316/Domain: spectrin/dystrophin repeat homology <SP18>

F:2327-2423/Domain: spectrin/dystrophin repeat homology <SP19>

F:2424-2470/Region: hinge

F:2471-2577/Domain: spectrin/dystrophin repeat homology <SP20>

F:2579-2686/Domain: spectrin/dystrophin repeat homology <SP21>

F:2688-2802/Domain: spectrin/dystrophin repeat homology <SP22>

F:2804-2931/Domain: spectrin/dystrophin repeat homology <SP23>

F:2933-3040/Domain: spectrin/dystrophin repeat homology <SP24>

F:3041-3112/Region: hinge

F:3055-3092/Domain: WW repeat homology <WW1>

F:3080-3360/Region: cysteine-rich

F:3506-3527/Region: leucine zipper motif

F:3572-3593/Region: leucine zipper motif

Query Match 35.2%; Score 58; DB 1; Length 3685;

Best Local Similarity 37.5%; Pred. No. 2.2e+02;

Matches 12; Conservative 10; Mismatches 8; Indels 2; Gaps 1;

Qy 1 SVSEIQXNKHKL--NSXREVEWLRKKLDV 30

Db 1423 SLEEMKHQKAEAAQRVLSQIDVAQKKLDV 1454

RESULT 13

T44470

C:Species: Shigella flexneri

C:Date: 21-Jan-2000 #sequence_revision 21-Jan-2000 #text_change 09-Jul-2004

C:Accession: T44470

R:Moss, J.E.; Cardozo, T.J.; Zychlinsky, A.; Groisman, E.A.

Mol. Microbiol. 33, 74-83, 1999

A:Title: The selC-associated SHI-2 pathogenicity island of Shigella flexneri.

A:Reference number: 222779; MUID:99340540; PMID:10411735

A:Accession: T44470

A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: DNA

A:Residues: 1-118 <MOS>

A:Cross-references: UNIPROT:Q9XC10; EMBL:AF141323; NID:g5532445; PIDN:AAD44737.1; PID:g55

A:Experimental source: strain W90T; serotype 5a

C:Genetics: GDB:310200

A:Gene: tnpD

RESULT 2			
PTHY_HUMAN	PTHY_HUMAN	STANDARD;	PRT; 115 AA.
AC	P01270;		
DT	21-JUL-1986	(Rel. 01, Created)	
DT	13-AUG-1987	(Rel. 05, Last sequence update)	
DT	25-JAN-2005	(Rel. 46, Last annotation update)	

DE Parathyroid hormone precursor (Parathyrin) (PTH) (Parathormone).
GN Name=PTH;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RN SEQUENCE FROM N.A.
RX MEDLINE=82150870; PubMed=6950381;
RA Hendy G.N., Kronenberg H.M., Potts J.T. Jr., Rich A.;
RA "Nucleotide sequence of cloned cDNAs encoding human preproparathyroid
RT hormone";
RT Proc. Natl. Acad. Sci. U.S.A. 78:7365-7369(1981).
RN [2]
RN SEQUENCE FROM N.A.
RX MEDLINE=83169834; PubMed=6220408;
RA Vasicek T.J., McDevitt B.E., Freeman M.W., Fennick B.J., Hendy G.N.,
RA Potts J.T. Jr., Rich A., Kronenberg H.M.;
RA "Nucleotide sequence of the human parathyroid hormone gene";
RT Proc. Natl. Acad. Sci. U.S.A. 80:2127-2131(1983).
RN [3]
RN SEQUENCE OF 26-37.
RX MEDLINE=74174967; PubMed=4833516;
RA Jacobs J.W., Kemper B., Niall H.D., Habener J.F., Potts J.T. Jr.;
RA "Structural analysis of human parathyroid hormone by a new
RT microsequencing approach";
RT Nature 249:155-157(1974).
RN [4]
RN SEQUENCE OF 26-40.
RX PubMed=15340161; DOI=10.1110/ps.04682504;
RA Zhang Z., Henzel W.J.;
RA "Signal peptide prediction based on analysis of experimentally
RT verified cleavage sites";
RT Protein Sci. 13:2819-2824(2004).
RN [5]
RN SEQUENCE OF 32-68.
RX MEDLINE=74111656; PubMed=4521809;
RA Niall H.D., Sauer R.T., Jacobs J.W., Keutmann H.T., Segre G.V.,
RA O'Riordan J.L.H., Aurbach G.D., Potts J.T. Jr.;
RA "The amino-acid sequence of the amino-terminal 37 residues of human
RT parathyroid hormone";
RT Proc. Natl. Acad. Sci. U.S.A. 71:384-388(1974).
RN [6]
RN SEQUENCE OF 61-83 AND 84-115.
RX MEDLINE=79082855; PubMed=728431;
RA Keutmann H.T., Sauer M.W., Hendy G.N., O'Riordan J.L.H.,
RA Potts J.T. Jr.;
RA "Complete amino acid sequence of human parathyroid hormone";
RT Biochemistry 17:5723-5729(1978).
RN [7]
RN SEQUENCE OF 75-100.
RA Keutmann H.T., Niall H.D., Jacobs J.W., Barling P.M., Hendy G.N.,
RA O'Riordan J.L.H., Potts J.T. Jr.;
RA (In) Talmadge R.V., Owen M., Parsons J.A. (eds.);
RL Calcium-regulating hormones, pp.9-14, Excerpta Medica Foundation,
RL Amsterdam (1975).
RN [8]
RN REVISIONS.
RX MEDLINE=75146516; PubMed=1125201;
RA Keutmann H.T., Niall H.D., O'Riordan J.L.H., Potts J.T. Jr.;
RA "A reinvestigation of the amino-terminal sequence of human parathyroid
RT hormone";
RT Biochemistry 14:1842-1847(1975).
RN [9]
RN SYNTHESIS OF 32-65.
RX MEDLINE=75059220; PubMed=4474131;
RA Tregear G.W., van Rietschoten J., Green E., Niall H.D., Keutmann H.T.,
RA Parsons J.A., O'Riordan J.L.H., Potts J.T. Jr.;
RA "Solid-phase synthesis of the biologically active N-terminal 1-34
RT peptide of human parathyroid hormone";
RT Hoppe-Seyler's Z. Physiol. Chem. 355:415-421(1974).
RN [10]
RN SYNTHESIS OF 32-65.
RX MEDLINE=73227467; PubMed=4721748;
RA Andreatta R.H., Hartmann A., Joehl A., Kamber B., Maier R.,
RA Riniker B., Rittel W., Sieber P.;
RT "Synthesis of sequence 1-34 of human parathyroid hormone";
RL Helv. Chim. Acta 56:470-473(1973).
RN [11]
RN STRUCTURE BY NMR OF 32-65.
RX MEDLINE=91299748; PubMed=2069952;
RA Klaus W., Dieckmann T., Wray V., Schomburg D., Wingender E., Mayer H.;
RA "Investigation of the solution structure of the human parathyroid
RT hormone fragment (1-34) by 1H NMR spectroscopy, distance geometry, and
RT molecular dynamics calculations";
RT Biochemistry 30:6936-6942(1991).
RN [12]
RN STRUCTURE BY NMR OF 32-65.
RX MEDLINE=93345518; PubMed=8344299;
RA Barden J.A., Cuthbertson R.M.;
RA "Stabilized NMR structure of human parathyroid hormone (1-34)";
RL Eur. J. Biochem. 215:315-321(1993).
RN [13]
RN STRUCTURE BY NMR OF 32-68.
RX MEDLINE=95318084; PubMed=7797503; DOI=10.1074/jbc.270.25.15194;
RA Marx U.C., Austermann S., Bayer P., Forssmann W.-G., Rosch P.;
RA "Solution structures of human parathyroid hormone fragments hPTH(1-34)
RT and hPTH(1-39) and bovine parathyroid hormone fragment bPTH(1-37)";
RL Biochem. Biophys. Res. Commun. 267:213-220(2000).
RN [15]
RN VARIANT FTH ARG-18.
RX MEDLINE=91009811; PubMed=2212001;
RA Arnold A., Horst S.A., Gardella T.J., Baba H., Levine M.A.,
RA Kronenberg H.M.;
RT "Mutation of the signal peptide-encoding region of the
RT preproparathyroid hormone gene in familial isolated
RT hypoparathyroidism";
RL J. Clin. Invest. 86:1084-1087(1990).
RN [16]
RN VARIANT FTH PRO-23.
RA Sunthornchepvarakul T., Churesigaw S., Ngowngarmratana S.;
RA "A novel mutation of the signal peptide of the preproparathyroid
RT hormone gene associated with autosomal recessive familial isolated
RT hypoparathyroidism";
RL J. Clin. Endocrinol. Metab. 84:3792-3796(1999).
RN [17]
RN FUNCTION: PTH elevates calcium level by dissolving the salts in
CC bone and preventing their renal excretion.
CC [1-] FUNCTION: PTH elevates calcium level by dissolving the salts in
CC bone and preventing their renal excretion.
CC [1-] SUBCELLULAR LOCATION: Secreted.
CC [1-] DISEASE: Defects in PTH are a cause of familial isolated
CC hypoparathyroidism (FIH) [MIM:146200]. FIH exist both as autosomal
CC dominant and recessive forms of hypoparathyroidism.
CC [1-] SIMILARITY: Belongs to the parathyroid hormone family.
CC
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CC or send an email to license@isb-sib.ch).
CC
CC EMBL; J00301; AAA60215.1; -
DR EMBL; V00597; CAA23843.1; -
DR EMBL; A29146; CAA01956.1; -
DR PIR; A19339; PTHU.
DR PDB; 1BWX; NMR; @=32-70.
DR PDB; 1ET1; X-ray; A/B=32-65.
DR PDB; 1ET2; Model; A=32-65.
DR

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DR PDB; 1FVY; NMR; A=32-62.
DR PDB; 1HPH; NMR; @=32-68.
DR PDB; 1HBY; NMR; @=32-65.
DR PDB; 1HTH; NMR; @=32-65.
DR PDB; 1ZWA; NMR; @=32-65.
DR PDB; 1ZWB; NMR; @=33-68.
DR PDB; 1ZWD; NMR; @=34-68.
DR PDB; 1ZWE; NMR; @=35-68.
DR PDB; 1ZWF; NMR; @=34-68.
DR PDB; 1ZWG; NMR; @=34-68.
DR PDB; 1ZWH; NMR; @=34-68.
DR MIM; 168450; -.
DR MIM; 148200; -.
DR GO; GO:0003179; F.hormone activity; TAS.
DR GO; GO:0046058; P.cAMP metabolism; TAS.
DR GO; GO:0007267; P.cell-cell signaling; TAS.
DR GO; GO:0007186; P.G-protein coupled receptor protein signalin. . .; TAS.
DR GO; GO:0008628; P.induction of apoptosis by hormones; TAS.
DR GO; GO:0001501; P.skeletal development; TAS.
DR InterPro; IPR001415; Parathyroid hrm.
DR InterPro; IPR003625; Pthyroid hrm.
DR Pfam; PF01279; Parathyroid; 1.
DR PIRSF; PIRSF001832; PTH; 1.
DR ProDom; PD010687; Pthyroid hrm; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
DR 3D-structure; Direct protein sequencing; Disease mutation; Hormone;
KW SIGNAL.
FT PROPEP 1 25
FT CHAIN 26 31
FT VARIANT 18 18
FT VARIAT 23 23
FT VARIAT 23 23
FT CONFLICT 107 107
FT HELIX 34 64
FT SEQUENCE 115 AA; 12861 MW; 849015736AE5597 CRC64;
Query Match 91.2%; Score 150.5; DB 1; Length 115;
Best Local Similarity 85.3%; Pred. No. 1.2e-10;
Matches 29; Conservative 4; Mismatches 0; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNKGKHLNSXRVWLKRLQDVHNY 33
DB 32 SVSEIQLMHNLGKHLNSMERVWLKRLQDVHNF 65
RESULT 3
PTHY MACFA
ID PTHY MACFA STANDARD; PRT; 115 AA.
AC Q9XT35;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Parathyroid hormone precursor (Parathyrin) (PTH).
GN Name=PTH;
OS Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopitheidae;
OC Cercopitheidae; Macaca.
OX NCBI_TaxID=9541;
RN [1]
RP SEQUENCE FROM N.A.
RA Malaivijitnond S., Takenaka O.;
RA "Nucleotide sequences of parathyroid gene in five species of macaque of Thailand."
RT J. Sci. Res. Chulalongkorn Univ. 23:135-142(1998).
CC -!- FUNCTION: PTH elevates calcium level by dissolving the salts in bone and preventing their renal excretion.
CC -!- SUBCELLULAR LOCATION: Secreted.
DR PDB; 1ZWH; NMR; @=34-68.
DR MIM; 168450; -.
DR MIM; 148200; -.
DR GO; GO:0003179; F.hormone activity; TAS.
DR GO; GO:0046058; P.cAMP metabolism; TAS.
DR GO; GO:0007267; P.cell-cell signaling; TAS.
DR GO; GO:0007186; P.G-protein coupled receptor protein signalin. . .; TAS.
DR GO; GO:0008628; P.induction of apoptosis by hormones; TAS.
DR GO; GO:0001501; P.skeletal development; TAS.
DR InterPro; IPR001415; Parathyroid hrm.
DR InterPro; IPR003625; Pthyroid hrm.
DR Pfam; PF01279; Parathyroid; 1.
DR PIRSF; PIRSF001832; PTH; 1.
DR ProDom; PD010687; Pthyroid hrm; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
DR 3D-structure; Direct protein sequencing; Disease mutation; Hormone;
KW SIGNAL.
FT PROPEP 1 25
FT CHAIN 26 31
FT VARIANT 18 18
FT VARIAT 23 23
FT VARIAT 23 23
FT CONFLICT 107 107
FT HELIX 34 64
FT SEQUENCE 115 AA; 12861 MW; 849015736AE5597 CRC64;
Query Match 91.2%; Score 150.5; DB 1; Length 115;
Best Local Similarity 85.3%; Pred. No. 1.2e-10;
Matches 29; Conservative 4; Mismatches 0; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNKGKHLNSXRVWLKRLQDVHNY 33
DB 32 SVSEIQLMHNLGKHLNSMERVWLKRLQDVHNF 65
RESULT 4
PTHY CANFA
ID PTHY CANFA STANDARD; PRT; 115 AA.
AC P52212;
DT 01-OCT-1996 (Rel. 34, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Parathyroid hormone precursor (Parathyrin) (PTH).
GN Name=PTH;
OS Canis familiaris (Dog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX NCBI_TaxID=9615;
RN [1]
RP SEQUENCE FROM N.A.
RA TISSUE=Parathyroid;
RA MEDLINE=95369696; PubMed=7642102; DOI=10.1016/0378-1119(94)00913-C;
RA Rosol T.J., Steinmeyer C.L., McCauley L.K., Groene A., Dewille J.W.,
RA Capen C.C.;
RA "Sequences of the cDNAs encoding canine parathyroid hormone-related protein and parathyroid hormone."
RL Gene 160:241-243(1995).
CC -!- FUNCTION: PTH elevates calcium level by dissolving the salts in bone and preventing their renal excretion.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
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CC EMBL; U15662; AA82584.1; -.
DR PIR; JC4202; JC4202.
DR HSSP; P01268; 12WC.
DR InterPro; IPR001415; Parathyrd_hrm.

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DR InterPro; IPR003625; Pthyrohm_sub.
DR Pfam; PF01279; Parathyroid; 1.
DR PIRSF; PIRSF001832; PTH; 1.
DR ProDom; PD010687; Pthyrohm_sub; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
KW Hormone; Signal.
FT SIGNAL 1 25 By similarity.
FT PROPEP 26 31 By similarity.
FT CHAIN 32 115 Parathyroid hormone.
SQ SEQUENCE 115 AA; 12957 MW; FC38F77F1C8CFE56 CRC64;

Query Match 88.2%; Score 145.5; DB 1; Length 115;
Best Local Similarity 82.4%; Pred. No. 4.8e-10;
Matches 28; Conservative 5; Mismatches 0; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVEWLKRLQDVHNY 33
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Db 32 SVSEIQFMHNLGKHLSSMERVEWLKRLQDVHNF 65

RESULT 5
PTHY_PIG ID PTHY_PIG STANDARD; PRT; 115 AA.
AC P01269;
DT 21-JUL-1986 (Rel. 01, Created)
DT 01-JAN-1988 (Rel. 06, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Parathyroid hormone precursor (Parathyrin) (PTH).
GN Name=PTH;
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX NCBI_taxid=9823;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=87316938; PubMed=3628009;
RA Schmelzer H.-J., Gross G., Widera G., Mayer H.;
RT "Nucleotide sequence of a full-length cDNA clone encoding
   preproparathyroid hormone from pig and rat.";
RL Nucleic Acids Res. 15:6740-6740(1987).
RN [2]
RP SEQUENCE OF 26-115.
RX MEDLINE=76018954; PubMed=1164500;
RA Chu L.L.H., Huang W.-Y., Littledike E.T., Hamilton J.W., Cohn D.V.;
RT "Porcine parathyroid hormone. Identification, biosynthesis, and
   partial amino acid sequence.";
RL Biochemistry 14:3631-3635(1975).
RN [3]
RP SEQUENCE OF 32-115.
RX MEDLINE=74253317; PubMed=4840833;
RA Sauer R.T., Niall H.D., Hogan M.L., Keutmann H.T., O'Riordan J.L.H.,
RA Potts J.T. Jr.;
RT "The amino acid sequence of porcine parathyroid hormone.";
RL Biochemistry 13:1994-1999(1974).
CC -!- FUNCTION: PTH elevates calcium level by dissolving the salts in
   bone and preventing their renal excretion.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
-----
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   or send an email to license@isb-sib.ch).
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DR EMBL; X05722; CAA29193.1; -
DR F01; B26806; PTPG.
DR HSSP; P01270; 1BW.
DR InterPro; IPR001415; Parathyrd_hrm.
DR InterPro; IPR003625; Pthyrohm_sub.

DR Pfam; PF01279; Parathyroid; 1.
DR PIRSF; PIRSF001832; PTH; 1.
DR ProDom; PD010687; Pthyrohm_sub; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
KW Hormone; Signal.
FT SIGNAL 1 25 By similarity.
FT PROPEP 26 31 By similarity.
FT CHAIN 32 115 Parathyroid hormone.
SQ SEQUENCE 115 AA; 12852 MW; 9FE8BCDE614BAC16 CRC64;

Query Match 88.2%; Score 145.5; DB 1; Length 115;
Best Local Similarity 82.4%; Pred. No. 4.8e-10;
Matches 28; Conservative 5; Mismatches 0; Indels 1; Gaps 1;

QY 1 SVSEIQ-XHNKGKHLNSXERVEWLKRLQDVHNY 33
   ||||| :|||:|||||:|||||:|||||:
Db 32 SVSEIQFMHNLGKHLSSMERVEWLKRLQDVHNF 65

RESULT 6
PTHY_BOVIN ID PTHY_BOVIN STANDARD; PRT; 115 AA.
AC P01268;
DT 21-JUL-1986 (Rel. 01, Created)
DT 21-JUL-1986 (Rel. 01, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Parathyroid hormone precursor (Parathyrin) (PTH).
GN Name=PTH;
OS Bos taurus (Bovine).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Bovinae; Bos.
OX NCBI_taxid=9913;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=80056617; PubMed=388425;
RA Kronenberg H.M., McDevitt B.E., Majzoub J.A., Nathans J., Sharp P.A.,
RA Potts J.T. Jr., Rich A.;
RT "Cloning and nucleotide sequence of DNA coding for bovine
   preproparathyroid hormone.";
RL Proc. Natl. Acad. Sci. U.S.A. 76:4981-4985(1979).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE=82037785; PubMed=6170060;
RA Weaver C.A., Gordon D.F., Kemper B.;
RT "Introduction by molecular cloning of artifactual inverted sequences
   at the 5' terminus of the sense strand of bovine parathyroid hormone
   cDNA.";
RL Proc. Natl. Acad. Sci. U.S.A. 78:4073-4077(1981).
RN [3]
RP SEQUENCE FROM N.A.
RX MEDLINE=83105964; PubMed=6185374; DOI=10.1016/0303-7207(82)90136-8;
RA Weaver C.A., Gordon D.F., Kemper B.;
RT "Nucleotide sequence of bovine parathyroid hormone messenger RNA.";
RL Mol. Cell. Endocrinol. 28:411-424(1982).
RN [4]
RP SEQUENCE FROM N.A.
RX MEDLINE=84262483; PubMed=6086460; DOI=10.1016/0378-1119(84)90149-5;
RA Weaver C.A., Gordon D.F., Kissil M.S., Mead D.A., Kemper B.;
RT "Isolation and complete nucleotide sequence of the gene for bovine
   parathyroid hormone.";
RL Gene 28:319-329(1984).
RN [5]
RP SEQUENCE OF 26-115.
RX MEDLINE=74142666; PubMed=4522780;
RA Hamilton J.W., Niall H.D., Jacobs J.W., Keutmann H.T., Potts J.T. Jr.,
RA Cohn D.V.;
RT "The N-terminal amino-acid sequence of bovine preproparathyroid
   hormone.";
RL Proc. Natl. Acad. Sci. U.S.A. 71:653-656(1974).
RN [6]
RP SEQUENCE OF 32-115.
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RX MEDLINE=71076162; PubMed=5531031;
RA Niall H.D., Keutmann H.T., Sauer R., Hogan M.L., Dawson B.F.,
RA Aurbach G.D., Potts J.T. Jr.;
RT "The amino acid sequence of bovine parathyroid hormone I.";
RN Hoppe-Seyler's Z. Physiol. Chem. 351:1586-1588(1970).
[7]
RX MEDLINE=71063634; PubMed=5275384;
RA Brewer H.B. Jr., Ronan R.;
RT "Bovine parathyroid hormone: amino acid sequence.";
RL Proc. Natl. Acad. Sci. U.S.A. 67:1862-1869(1970).
[8]
RX SYNTHESIS OF 32-65
RA MEDLINE=71091588; PubMed=4322265;
RA Potts J.T. Jr., Tregear G.W., Keutmann H.T., Niall H.D., Sauer R.,
RA Defetos L.J., Dawson B.F., Hogan M.L., Aurbach G.D.;
RT "Synthesis of a biologically active N-terminal tetratriacontapeptide
of parathyroid hormone.";
RL Proc. Natl. Acad. Sci. U.S.A. 68:63-67(1971).
[9]
RX STRUCTURE BY NMR OF 32-68.
RA MEDLINE=20090619; PubMed=10623601; DOI=10.1006/bbrc.1999.1958;
RA Marx U.C., Adermann K., Bayer P., Forssmann W.-G., Rosch P.;
RT "Solution structures of human parathyroid hormone fragments hPTH(1-34)
and hPTH(1-39) and bovine parathyroid hormone fragment bPTH(1-37).";
RL Biochem. Biophys. Res. Commun. 267:213-220(2000).
CC -!- FUNCTION: PTH elevates calcium level by dissolving the salts in
CC bone and preventing their renal excretion.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
CC
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CC
CC EMBL; V00106; CAA23439.1; -
DR EMBL; J00024; AAA30747.1; -
DR EMBL; K01938; AAA30749.1; -
DR EMBL; M25082; AAA30748.1; -
DR PIR; A24949; PTBO.
DR PDB; 1ZWC; NMR; @=32-68.
DR InterPro; IPR001415; Parathyroid hrm.
DR InterPro; IPR003625; Pthyrhorm_sub.
DR Pfam; PF01279; Parathyroid; 1.
DR PIRSF; PIRSF001832; PTH; 1.
DR ProDom; PD010687; Pthyrhorm_sub; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
DR 3D-structure; Direct protein sequencing; Hormone; Signal.
FT SIGNAL 1 25
FT PROPEP 26 31
FT CHAIN 32 115 Parathyroid hormone.
FT CONFLICT 106 106 V -> G (in Ref. 4).
FT HELIX 37 40
FT TURN 41 42
FT TURN 51 52
FT HELIX 53 60
FT TURN 61 63
SQ SEQUENCE 115 AA; 12980 MW; 2ED246B348880710 CRC64;
Query Match 86.4%; Score 142.5; DB 1; Length 115;
Best Local Similarity 79.4%; Pred. No. 1.1e-09;
Matches 27; Conservative 6; Mismatches 0; Indels 1; Gaps 1;
OY 1 SVSEIQ-XHNXGKHLNXXERVWLRKKLQDVHNY 33
DB 32 AVSEIQFMNLGKHLSSMERVWLRKKLQDVHNF 65

RESULT 7
PTHY_FELCA STANDARD; PRT; 115 AA.
AC Q9GL67;
DT 05-JUL-2004 (Rel. 44, Created)
DT 05-JUL-2004 (Rel. 44, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Parathyroid hormone precursor (Parathyrin) (PTH).
GN Name=PTH;
OS Felis silvestris catus (Cat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX NCBI_TaxID=9685;
RN [1]
RP SEQUENCE FROM N.A.
RA Toribio R.B., Kohn C.W., Leone G.W., Capen C.C., Rosol T.J.;
RT "Molecular cloning of feline preproparathyroid hormone.";
RL Submitted (OCT-2000) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: PTH elevates calcium level by dissolving the salts in
CC bone and preventing their renal excretion (By similarity).
CC -!- SUBCELLULAR LOCATION: Secreted (By similarity).
CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
CC
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CC
CC EMBL; AF309967; AAG30545.1; -
DR HSSP; P01268; 1ZWC.
DR InterPro; IPR001415; Parathyroid hrm.
DR InterPro; IPR003625; Pthyrhorm_sub.
DR Pfam; PF01279; Parathyroid; 1.
DR PIRSF; PIRSF001832; PTH; 1.
DR ProDom; PD010687; Pthyrhorm_sub; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
DR Hormone; Signal.
FT SIGNAL 1 25 By similarity.
FT PROPEP 26 31 By similarity.
FT CHAIN 32 115 Parathyroid hormone.
SQ SEQUENCE 115 AA; 12921 MW; 80CD557CC6A1A47E CRC64;
Query Match 86.4%; Score 142.5; DB 1; Length 115;
Best Local Similarity 79.4%; Pred. No. 1.1e-09;
Matches 27; Conservative 6; Mismatches 0; Indels 1; Gaps 1;
OY 1 SVSEIQ-XHNXGKHLNXXERVWLRKKLQDVHNY 33
DB 32 SVSEIQFMNLGKHLSSMERVWLRKKLQDVHNF 65
RESULT 8
Q80WZ2 PRELIMINARY; PRT; 105 AA.
AC Q80WZ2;
DT 01-JUN-2003 (TREMBLrel. 24, Created)
DT 01-JUN-2003 (TREMBLrel. 24, Last sequence update)
DT 01-OCT-2003 (TREMBLrel. 25, Last annotation update)
DE Hypothalamic parathyroid hormone.
GN Name=PTH-(1-84);
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=Sprague-Dawley;
RX MEDLINE=96079910; PubMed=7588314; DOI=10.1210/en.136.12.5600;
RA Nutley M.T., Parimi S.A., Harvey S.;

"Sequence analysis of hypothalamic parathyroid hormone messenger ribonucleic acid."
RL Endocrinology 136:5600-5607(1995).
DR EMBL; S80127; AAF32220.1; -.

DR HSSP; P01270; 12WB.
DR GO; GO:0005576; C:extracellular; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR InterPro; IPR001415; Parathyroid_hrm.
DR InterPro; IPR003625; Pthythorm_sub.
DR Pfam; PF01279; Parathyroid; 1.
DR PIRSF; PIRSF001832; PTH; 1.
DR ProDom; PD010687; Pthythorm_sub; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
SQ SEQUENCE 105 AA; 11684 MW; 18EE71B3F1CF5F70 CRC64;

Query Match 80.9%; Score 133.5; DB 2; Length 105;
Best Local Similarity 73.5%; Pred. No. 1.3e-08;
Matches 25; Conservative 7; Mismatches 1; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKXGHLNSXERVELRKKLQDVHNY 33
Db 22 AVSEIQLMHNLGKHLASVERMQLRKKLQDVHNF 55

RESULT 9

PTHY RAT
ID PTHY RAT STANDARD; PRT; 115 AA.
AC P04089; Q63473;
DT 01-NOV-1986 (Rel. 03, Created)
DT 01-NOV-1986 (Rel. 03, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Parathyroid hormone precursor (Parathyrin) (PTH).
GN Name=Pth;
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RA MEDLINE=84135846; PubMed=6321505;
RX Heinrich G., Kronenberg H.M., Potts J.T. Jr., Habener J.F.;
RT "Gene encoding parathyroid hormone. Nucleotide sequence of the rat
RT gene and deduced amino acid sequence of rat preproparathyroid
RT hormone."
RL J. Biol. Chem. 259:3320-3329(1984).
RN [2]
RP SEQUENCE FROM N.A.
RA MEDLINE=87316938; PubMed=3628009;
RX Schmelzer H.-J., Gross G., Widera G., Mayer H.;
RT "Nucleotide sequence of a full-length cDNA clone encoding
RT preproparathyroid hormone from pig and rat."
RL Nucleic Acids Res. 15:6740-6740(1987).
RN [3]
RP SEQUENCE OF 10-115 FROM N.A.
RC TISSUE=Parathyroid;
RA Schmelzer H.-J., Gross G., Mayer H.;
RT "Nucleotide sequence of cloned cDNA encoding rat prepro parathyroid
RT hormone."
RL Adv. Gene Technol. 21:228-229(1984).
RN [4]
RP SEQUENCE OF 32-115 FROM N.A.
RC STRAIN=Sprague-Dawley; TISSUE=Brain, Liver, and Parathyroid;
RX MEDLINE=96079910; PubMed=7588314; DOI=10.1210/en.136.12.5600;
RA Nuclei M.T., Farimi S.A., Harvey S.;
RT "Sequence analysis of hypothalamic parathyroid hormone messenger
RT ribonucleic acid."
RL Endocrinology 136:5600-5607(1995).
CC -1- FUNCTION: PTH elevates calcium level by dissolving the salts in
CC bone and preventing their renal excretion.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- TISSUE SPECIFICITY: Hypothalamus and parathyroid gland.
CC -1- SIMILARITY: Belongs to the parathyroid hormone family.

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DR EMBL; K01268; AAA41979.1; -.
DR EMBL; X05721; CAA29192.1; -.
DR EMBL; M54875; AAA57156.1; -.
DR EMBL; S80127; -; NOT_ANNOTATED_CDS.
DR PIR; A05091; A05091.
DR HSSP; P01270; 12WB.
DR RGD; 3440; Pth.
DR InterPro; IPR001415; Parathyroid_hrm.
DR InterPro; IPR003625; Pthythorm_sub.
DR Pfam; PF01279; Parathyroid; 1.
DR PIRSF; PIRSF001832; PTH; 1.
DR ProDom; PD013225; PTH-related; 1.
DR ProDom; PD010687; Pthythorm_sub; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
KW Hormone; Signal.

FT SIGNAL 1 25
FT PROPEP 26 31
FT CHAIN 32 115
FT CONFLICT 18 18
FT CONFLICT 23 23
FT CONFLICT 33 33
FT CONFLICT 62 62
SQ SEQUENCE 115 AA; 12722 MW; 7B434CFCA5288230 CRC64;

Query Match 80.9%; Score 133.5; DB 1; Length 115;
Best Local Similarity 73.5%; Pred. No. 1.4e-08;
Matches 25; Conservative 7; Mismatches 1; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKXGHLNSXERVELRKKLQDVHNY 33
Db 32 AVSEIQLMHNLGKHLASVERMQLRKKLQDVHNF 65

RESULT 10

Q9Z0L6
ID Q9Z0L6 PRELIMINARY; PRT; 115 AA.
AC Q9Z0L6;
DT 01-MAY-1999 (TrEMBLrel. 10, Created)
DT 01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE Parathyroid hormone precursor.
GN Name=Pth;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=129/Sv;
RA Karaplis A.C., He B., Hiou-Tim F.T., Al-Akad B., Kronenberg H.M.;
RL Submitted (MAY-1998) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF066075; AAC99656.1; -.
DR HSSP; P01270; 12WB.
DR MGD; MGI:197799; Pth.
DR GO; GO:0005635; C:extracellular space; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0006874; P:calcium ion homeostasis; TAS.
DR InterPro; IPR001415; Parathyroid_hrm.
DR InterPro; IPR003625; Pthythorm_sub.
DR Pfam; PF01279; Parathyroid; 1.
DR PIRSF; PIRSF001832; PTH; 1.
DR ProDom; PD010687; Pthythorm_sub; 1.
DR SMART; SM00087; PTH; 1.

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DR PROSITE; PS00335; PARATHYROID; 1.
KW Signal.
FT SIGNAL 1 25 Potential.
FT CHAIN 32 115 parathyroid hormone.
SQ SEQUENCE 115 AA; 12825 MW; DA3FABBCB4E2FD9 CRC64;
Query Match 77.3%; Score 127.5; DB 2; Length 115;
Best Local Similarity 67.6%; Pred. No. 7.9e-08;
Matches 23; Conservative 9; Mismatches 1; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNKGKHLNSXRVWLRKKLQDVHNY 33
Db :||||:||||:||||:||||:||||:||||:||||:||||:
32 AVSEIQLMHNLGKHLASMERQWLRRKLQDMENP 65

RESULT 11
PTHY_CHICK
ID PTHY_CHICK STANDARD; PRT; 119 AA.
AC P15743;
DT 01-APR-1990 (Rel. 14, Created)
DT 01-APR-1990 (Rel. 14, Last sequence update)
DT 25-OCT-2004 (Rel. 45, Last annotation update)
DE Parathyroid hormone precursor (PTH).
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianinae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=89219100; PubMed=2710135;
RA Russell J., Sherwood L.M.;
RT "Nucleotide sequence of the DNA complementary to avian (chicken)
preparathyroid hormone mRNA and the deduced sequence of the hormone
precursor.";
RL Mol. Endocrinol. 3:325-331 (1989).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE=89284968; PubMed=3251402;
RA Khosla S., Denay M., Pines M., Hurwitz S., Potts J.T. Jr.,
RA Kronenberg H.M.;
RT "Nucleotide sequence of cloned cDNAs encoding chicken
preparathyroid hormone.";
RL J. Bone Miner. Res. 3:689-698 (1988).
CC -!- FUNCTION: PTH elevates calcium level by dissolving the salts in
bone and preventing their renal excretion.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- SIMILARITY: Belongs to the parathyroid hormone family.
-----
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DR EMBL; M31604; AAA49093.1; -.
DR EMBL; M36522; AAB02866.1; -.
DR PIR; A34937; A34937.
DR HSP; P01270; 1FVY.
DR InterPro; IPR001415; Parathyrd_hrm.
DR InterPro; IPR003625; Pthyrhorm_sub.
DR Pfam; PF01279; Parathyroid; 1.
DR PIRSF; PIRSF01832; PTH; 1.
DR ProDom; PD013225; PTH related; 1.
DR ProDom; PD010687; Pthyrhorm_sub; 1.
DR SMART; SM00087; PTH; 1.
DR PROSITE; PS00335; PARATHYROID; 1.
KW Hormone; Signal.
FT SIGNAL 1 25
FT PROPEP 26 31
FT CHAIN 32 119 Parathyroid hormone.
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SQ SEQUENCE 119 AA; 13943 MW; B309D8E772997F6E CRC64;
Query Match 62.1%; Score 102.5; DB 1; Length 119;
Best Local Similarity 57.6%; Pred. No. 9.7e-05;
Matches 19; Conservative 10; Mismatches 3; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNKGKHLNSXRVWLRKKLQDVHNY 32
Db :||||:||||:||||:||||:||||:||||:||||:||||:
32 SVSEIQLMHNLGHRHTVERQDWLQMKLQDVHS 64

RESULT 12
QW9J4
ID QW9J4 PRELIMINARY; PRT; 91 AA.
AC Q6W9J4;
DT 05-JUL-2004 (TReMBLrel. 27, Created)
DT 05-JUL-2004 (TReMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TReMBLrel. 27, Last annotation update)
DE Parathyroid hormone type-2.
GN Name=PTH;
OS Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
OC Tetraodontidae; Tetraodontidae; Takifugu.
OX NCBI_TaxID=31033;
RN [1]
RP SEQUENCE FROM N.A.
RX PubMed=14684608; DOI=10.1210/en.2003-0964;
RA Gensure R.C., Ponugoti B., Gunes Y., Papasani M.R., Lanske B.,
RA Bastepe M., Rubin D.A., Juppner H.;
RT "Identification and characterization of two parathyroid hormone-like
molecules in zebrafish.";
RL Endocrinology 145:1634-1639 (2004).
DR EMBL; AY32221; AAQ73561.1; -.
DR GO; GO:0005576; C:extracellular; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007595; P:lactation; IEA.
DR InterPro; IPR001415; Parathyrd_hrm.
DR InterPro; IPR003625; Pthyrhorm_sub.
DR InterPro; IPR003626; PTH related.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD010687; Pthyrhorm_sub; 1.
DR ProDom; PD013225; PTH related; 2.
DR SMART; SM00087; PTH; 1.
SQ SEQUENCE 91 AA; 10647 MW; 75BBA25CEA64BF68 CRC64;
Query Match 47.0%; Score 77.5; DB 2; Length 91;
Best Local Similarity 45.2%; Pred. No. 0.088;
Matches 14; Conservative 11; Mismatches 5; Indels 1; Gaps 1;
QY 1 SVSEIQ-XHNKGKHLNSXRVWLRKKLQDV 30
Db :||||:||||:||||:||||:||||:||||:||||:||||:
30 TISEQLMHNVRHKKQVGERQDWLQEKLDV 60

RESULT 13
Q6WQ25
ID Q6WQ25 PRELIMINARY; PRT; 102 AA.
AC Q6WQ25;
DT 05-JUL-2004 (TReMBLrel. 27, Created)
DT 05-JUL-2004 (TReMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TReMBLrel. 27, Last annotation update)
DE Parathyroid hormone ligand type-1.
GN Name=pth1;
OS Brachydanio rerio (zebrafish) (Danio rerio).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
OC Cyprinidae; Danio.
OX NCBI_TaxID=7955;
RN [1]
RP SEQUENCE FROM N.A.
RX PubMed=14684608; DOI=10.1210/en.2003-0964;
```

RA Gensure R.C., Ponugoti B., Gunes Y., Papasani M.R., Lanske B.,
RA Bastepe M., Rubin D.A., Juppner H.,
RT "Identification and characterization of two parathyroid hormone-like
RT molecules in zebrafish."
RL Endocrinology 145:1634-1639(2004).
DR ZFIN; ZDB-GENE-040623-1; pth1.
DR GO; GO:0005576; C:extracellular; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR InterPro; IPR001415; P:thyroid hrm.
DR InterPro; IPR003625; P:thyroid hrm.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD010687; P:thyroid hrm; 1.
DR SMART; SM00087; PTH; 1.
SQ SEQUENCE 102 AA; 11690 MW; 5AA7A84FFA110764 CRC64;

Query Match 43.3%; Score 71.5; DB 2; Length 102;
Best Local Similarity 40.6%; Pred. No. 0.54;
Matches 13; Conservative 11; Mismatches 7; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKXGHLNSXERVELRKKLQDVH 31
Db 36 AVNEVQLMHNIGVHKHVELRQDLQMKLRGIH 67

RESULT 14
Q6WQ24 PRELIMINARY; PRT; 99 AA.
ID Q6WQ24
AC Q6WQ24
DT 05-JUL-2004 (TReMBLrel. 27, Created)
DT 05-JUL-2004 (TReMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TReMBLrel. 27, Last annotation update)
DE Parathyroid hormone ligand type-2.
GN Name=pch2;
OS Brachydanio rerio (Zebrafish) (Danio rerio).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;
OC Cyprinidae; Danio.
OX NCBI_TaxID=7955;
RN [1]

RP SEQUENCE FROM N.A.
RX PubMed=14684608; DOI=10.1210/en.2003-0964;
RA Gensure R.C., Ponugoti B., Gunes Y., Papasani M.R., Lanske B.,
RA Bastepe M., Rubin D.A., Juppner H.,
RT "Identification and characterization of two parathyroid hormone-like
RT molecules in zebrafish."
RL Endocrinology 145:1634-1639(2004).
DR EMBL; AY275670; AAQ16567.1; -.
DR ZFIN; ZDB-GENE-040623-2; pth2.
DR GO; GO:0005576; C:extracellular; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR InterPro; IPR001415; P:thyroid hrm.
DR InterPro; IPR003625; P:thyroid hrm.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD010687; P:thyroid hrm; 1.
DR SMART; SM00087; PTH; 1.
SQ SEQUENCE 99 AA; 11569 MW; 7F8BF84A7CA4D62 CRC64;

Query Match 41.5%; Score 68.5; DB 2; Length 99;
Best Local Similarity 38.7%; Pred. No. 1.2;
Matches 12; Conservative 11; Mismatches 7; Indels 1; Gaps 1;

Qy 1 SVSEIQ-XHNKXGHLNSXERVELRKKLQDV 30
Db 34 SISEVQLMHNVRHEKMLDRLQDLQLKLNNI 64

RESULT 15
Q918E9 PRELIMINARY; PRT; 163 AA.
ID Q918E9
AC Q918E9
DT 01-OCT-2000 (TReMBLrel. 15, Created)
DT 01-OCT-2000 (TReMBLrel. 15, Last sequence update)

DT 01-JUN-2003 (TReMBLrel. 24, Last annotation update)
DE Parathyroid hormone-related protein precursor.
GN Name=PTHrP;
OS Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
OC Tetraodontidae; Tetraodontidae; Takifugu.
OX NCBI_TaxID=31033;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=20314478; PubMed=10854780; DOI=10.1016/S0378-1119(00)00167-0;
RA Power D.M., Flannigan J., Ingleton P.M., Canario A.V.M., Danks J.,
RA Elgar G., Clark M.S.;
RT "Genomic structure and expression of parathyroid hormone-related
RT protein in a teleost, Fugu rubripes."
RL Gene 250:67-76(2000).
DR EMBL; AJ249391; CAB94712.1; -.
DR HSSP; P12272; 1BZG.
DR GO; GO:0005576; C:extracellular; IEA.
DR GO; GO:0005179; F:hormone activity; IEA.
DR GO; GO:0007595; P:lactation; IEA.
DR InterPro; IPR001415; Parathyrd hrm.
DR InterPro; IPR003626; PTH related.
DR Pfam; PF01279; Parathyroid; 1.
DR ProDom; PD013225; PTH_related; 1.
KW Signal.
FT SIGNAL 1 34 Potential.
SQ SEQUENCE 163 AA; 18698 MW; 3AC5F2C764732278 CRC64;
Query Match 40.3%; Score 66.5; DB 2; Length 163;
Best Local Similarity 43.8%; Pred. No. 3.7; Mismatches 7; Indels 1; Gaps 1;
Matches 14; Conservative 7;

Qy 1 SVSEIQ-XHNKXGHLNSXERVELRKKLQDVH 31
Db 38 SVSHAQLMHDKGRSLQSFRRRMWLLKLEEVH 69

Search completed: April 2, 2005, 00:11:45
Job time : 182 secs